UNITED NATIONS

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General Assembly

Economic and Social Council

Distr.
GENERAL

A/47/214
E/1992/50
18 May 1992

ORIGINAL: ENGLISH

GENERAL ASSEMBLY
Forty-seventh session
Item 94 (a) of the preliminary list*
SOCIAL DEVELOPMENT: QUESTIONS RELATING TO THE WORLD SOCIAL SITUATION AND TO YOUTH, AGEING, DISABLED PERSONS AND THE FAMILY

ECONOMIC AND SOCIAL COUNCIL
Substantive session of 1992
Item 18 (b) of the provisional agenda
SOCIAL DEVELOPMENT QUESTIONS: SOCIAL DEVELOPMENT

CONTINUATION OF THE VOLUNTARY FUND FOR THE UNITED NATIONS DECADE OF DISABLED PERSONS

Note by the Secretary-General

I. BACKGROUND

1. In its resolution 46/96 of 16 December 1991, the General Assembly requested, inter alia, the Economic and Social Council at its first regular session of 1992 to give its views on the continuation of the Voluntary Fund for the United Nations Decade of Disabled Persons, with new terms of reference, in response to resolution 45/91 of 14 December 1990, and to submit its recommendations to the Assembly at its forty-seventh session.

2. The present note of the Secretary-General is prepared to ensure that the Economic and Social Council has the most relevant information when it considers the issue. The note will then be transmitted to the General Assembly at its forty-seventh session, along with the views of the Council on the subject.

3. The General Assembly, in resolution 45/91, requested the Secretary-General to shift the focus of the United Nations programme on disability from awareness-raising to action, with the aim of achieving a society for all by the year 2010, and stressed the need for priority to be given to action-oriented programmes and sustained commitment by Member States to the implementation of the World Programme of Action beyond the Decade and to ensure thereby the continued improvement of the situation of disabled persons.

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* A/47/50.

4. The Voluntary Fund, originally entitled the United Nations Trust Fund for the International Year of Disabled Persons, was established by the Secretary-General pursuant to General Assembly resolution 32/133 of 16 December 1977.

5. By its resolution 40/31 of 29 November 1985 the General Assembly endorsed the terms of reference of the Trust Fund proposed by the Secretary-General (see A/40/728 and Corr.1) to further the achievement of the goals of the World Programme of Action concerning Disabled Persons (A/37/35/Add.1 and Add.1/Corr.1, annex) of full participation and equalization of opportunities of disabled persons, and decided that the Trust Fund should henceforth be called the Voluntary Fund for the United Nations Decade of Disabled Persons. By the same resolution the Assembly reaffirmed that the resources of the Voluntary Fund should be used to support the implementation of the objectives of the World Programme of Action within the framework of the United Nations Decade of Disabled Persons (1983-1992), with priority given, as appropriate, to programmes and projects of least developed countries.

II. PERFORMANCE OF THE FUND

6. Since becoming operational in 1980 through to the end of 1991, the Fund provided a total of nearly US$ 3 million in seed-money grants to 161 disability-related projects, in Africa, Asia and the Pacific, Western Asia and Latin America and the Carribean. Global or regional projects accounted for 30 per cent of the total number of projects supported and 37 per cent of the total funds distributed (see table).

Table. Projects supported and grants disbursed by region, January 1980-December 1991

Regions	Number of projects	Per-centage	Value of grants (United States dollars)	Per-centage
Africa	45	28	1 075 281	37
Asia and the Pacific	36	22	476 922	16
Europe	1	0.6	1 440	0.05
Latin America and the Caribbean	15	9	129 300	4
Western Asia	16	10	294 413	10
Interregional/global	48	30	955 154	33
Total	161		2 932 510	

7. National capacity-building and institutional development were the main focus of the Fund-assisted activities. Training activities supported by the Fund accounted for 38 per cent of the total resources; technical exchange and knowledge (20 per cent); support to disabled persons' own organizations (19 per cent); data collection and applied research (13 per cent); and promotional activities (7.45 per cent).

8. Sources of finance were primarily the contributions of 44 Member States, as well as small non-governmental organization and private sector contributions. Co-financing arrangements with the Arab Gulf Programme for United Nations Development Organizations (AGFUND) assisted 19 projects.

9. In accordance with its terms of reference, the Fund supported catalytic and innovative projects in the disability field, by providing seed money to small-scale disability-specific income-generating projects; by supporting networks of disabled persons' own organizations and encouraging South-South cooperation; by promoting awareness-raising activities and by reinforcing disability concerns within wider development programmes. The Fund has filled a specific and otherwise neglected niche by directly targeting disability issues and supporting small-scale projects. It has also enhanced cooperation between and within the non-governmental community by providing an opportunity for their direct involvement.

III. CONTINUATION OF THE FUND

10. The Secretary-General is of the view that the Voluntary Fund has contributed significantly to the work of the United Nations in the disability field, directly benefitting grassroot-level initiatives, and that it should continue in the period beyond the Decade, henceforth called the United Nations Fund on Disability in order to reach the international community's target, endorsed by resolution 45/91, of a society for all by the year 2010. In this context the Secretary-General suggests the following Terms of Reference of the Fund for the consideration of the Economic and Social Council:

Proposed terms of reference

The resources of the Fund shall be used to strengthen technical cooperation activites in the disability field between developed and developing countries, and between developing countries, through the co-financing of field-based technical cooperation activities related to integrated policies, strategies and programmes within the framework of the World Programme of Action concerning Disabled Persons, with special emphasis on least developed countries and on especially disadvantaged groups, for example, disabled women, elderly disabled persons, the hearing-impaired, mentally disabled persons and persons with multiple disabilities.

Specific activities eligible for funding shall include:

(a) The strengthening and improving of national capacities for:

(i) The attainment of the rights of disabled persons and the integration of disability aspects into national planning;

(ii) Training and advisory services on disability prevention, rehabilitation and equalization of opportunities;

(b) Human resources development of disabled persons and the initiation of employment-generating activities with the aim of encouraging the independance of disabled persons within their communities;

(c) The establishment and strengthening of organizations of disabled persons;

(d) The development and dissemination of appropriate disability-related technologies and know-how;

(e) Data collection, applied research and evaluation of integrated disability policies, strategies and programmes;

(f) Training for establishing and strengthening national coordinating committees or similar bodies.

UNITED NATIONS

A E

General Assembly

Economic and Social Council

Distr.
GENERAL

A/47/202
E/1992/51
13 May 1992

ORIGINAL: ENGLISH

GENERAL ASSEMBLY
Forty-seventh session
Item 79 (d) of the preliminary list*
DEVELOPMENT AND INTERNATIONAL ECONOMIC COOPERATION: DEVELOPMENT OF THE ENERGY RESOURCES OF DEVELOPING COUNTRIES

ECONOMIC AND SOCIAL COUNCIL
Substantive session of 1992
Item 11 (h) of the provisional agenda
DEVELOPMENT AND INTERNATIONAL ECONOMIC COOPERATION: DEVELOPMENT OF THE ENERGY RESOURCES OF DEVELOPING COUNTRIES

Energy exploration and development trends in developing countries

Report of the Secretary-General

SUMMARY

In its resolution 45/209 of 21 December 1990, the General Assembly welcomed the report of the Secretary-General on energy exploration and development trends in developing countries and the outline of a programme of action for the acceleration of energy exploration and development in developing countries; called upon interested Member States, in cooperation with the appropriate organs, organizations and bodies of the United Nations system, to continue to explore ways and means to support the efforts of developing countries in the exploration and development of their energy resources; and requested the Secretary-General to submit a comprehensive report on the implementation of the resolution.

The present report analyses trends in energy consumption and production in the developing countries and focuses on problems and issues over the next 20 years, with particular reference to the energy-deficient developing countries.

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* A/47/50.

Recent trends in energy consumption, particularly in the developing countries of Asia that have experienced considerable economic growth, have further demonstrated that development will be accompanied by higher energy intensities.

Oil and gas will continue to dominate energy balances in developing countries. High growth in electricity consumption will require a near doubling of installed production capacity by the year 2000. In order to meet the expected growth in energy demand, developing countries will face massive capital mobilization requirements, which may be exacerbated by environmental considerations.

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Abbreviations and symbols used

1.	b/d	barrels per day
2.	bmt	billion metric tons
3.	C.Eur.	Central Europe
4.	C.I.S.	Commonwealth of Independent States
5.	DCs	Developing Countries
6.	DMEs	Developed Market Economies
7.	E.Eur.	Eastern Europe
8.	GDP	Gross Domestic Product
9.	Lat.Amer.	Latin America
10.	mb/d	millions barrels per day
11.	Mid.East	Middle East
12.	mtoe	million metric tons of oil equivalent
13.	N.Amer.	North America
14.	OExDCs	Oil Exporting Developing Countries
15.	OIDC	Oil Importing Developing Countries
16.	OPEC	Organisation of Petroleum Exporting Countries
17.	U.S.A.	United States of America
18.	UAE	United Arab Emirates
19.	W.Eur.	Western Europe
20.	%	per cent

I. INTRODUCTION

1. Since the previous report of the Secretary-General which was submitted during the first half of 1990 (A/45/274-E/1990/73 and Corr.1), the crisis in the Persian Gulf and political developments in Central and Eastern European countries and the former USSR have had considerable direct and indirect impact on energy exploration and development in the developing world.

2. Following the invasion of Kuwait by Iraq on 2 August 1990, the trade embargo imposed by Security Council resolution 661 (1990) cut off more than 4 million barrels per day (mb/d) of exports from these two countries or 7 per cent of world consumption. This, and market speculation, resulted for a while in a doubling and tripling of oil prices with consequent shock effects on many oil importing developing countries.

3. In the message of the Secretary-General to the Ministerial Seminar of Petroleum Producers and Consumers, which was held in Paris on 1 and 2 July 1991 at the joint invitation of the Governments of France and Venezuela, it was stated 1/ that:

> "The recent crisis has brought to the fore, once again, the vulnerability of these countries, especially the least developed countries among them. The Security Council's decision to impose sanctions on Iraq has had a grave impact on the economies of the developing world, causing more than 20 countries to seek recourse under Article 50 of the Charter. The developed market economies had ample strategic oil reserves and commercial stockpiles. The developing world and the countries of Central and Eastern Europe had no adequate stocks of their own and had to bear the negative consequences."

4. The decision of member countries Organization of Petroleum Exporting Countries (OPEC) at their meeting in August 1990 to augment oil supplies by producing at full production capacity was taken with an explicit declaration that the objective was to meet the oil requirements of the developing world. 2/ While the loss of exports from Iraq and Kuwait was quickly made up with additional supplies from other member countries of OPEC, especially Saudi Arabia, many developing countries experienced shortages, with consequent losses of economic output. At the same time higher oil prices compounded the foreign exchange problem of these countries. It has been estimated that during the Persian Gulf crisis of August 1990 to January 1991 the incremental foreign exchange outlay for the oil imports of the developing countries amounted to as much as US$ 10 billion, or about a third more of their normal annual oil import bill. 3/ If these funds were to be invested in indigenous oil production they could augment supplies by 1 mb/d, or a doubling of current output. Scattered evidence suggests that special arrangements on a bilateral basis and loans from multilateral institutions cushioned the adverse impact in some developing countries. However, these measures fell short of requirements in view of the magnitude of the problem, especially in the least developed

countries and other developing countries, which suffered additional losses because of major trade relationships with Iraq and Kuwait.

5. Prior to the Persian Gulf crisis anticipation of continued economic growth and consequent increases in world oil demand had already led to the consideration of new arrangements between host oil exporting developing countries and international oil companies for new investments to expand production capacities. At the same time both oil exporting and importing developing countries, as well as the countries of Central and Eastern Europe and the former Soviet Union, had initiated measures for the reorganization and in some cases privatization of national oil enterprises and the provision of incentives for more direct foreign investments in their petroleum industries.

6. Much of this effort was stalled during the Persian Gulf crisis. Since then the deepening of economic recession in many of the developed market economies and depression in several of the formerly centrally planned economies of Central and Eastern Europe have led to only marginal increases in global oil demand and a drop in oil prices to their pre-Persian Gulf crisis levels. At the same time increasing environmental concerns, particularly with regard to the contribution of fossil fuels to carbon dioxide emissions and climate warming as well as intensive consideration of special taxes aimed at the reduction of fossil fuel consumption, have led to increasing uncertainties which have caused hesitations in commitments for large-scale capital intensive energy projects.

7. As emphasized in the previous report of the Secretary-General, analysis of trends on the demand side of the energy picture during the past two decades has clearly demonstrated that economic development in the developing world had been accompanied by higher energy intensities. In other words, more energy is needed now than previously for every US$ 1,000 of gross domestic product in the developing world (A/45/274-E/1990/73 and Corr.1, table 4). More recent trends in energy consumption, particularly in the fast growing developing economies of Asia have demonstrated further the validity of that conclusion.

8. Forecasts to the year 2010 prepared by the Secretariat indicate that energy demand in the developing countries will grow at an average annual rate of 4.4 per cent, which is much higher than the expected growth in the developed market economies of 1.8 per cent.

9. Half of the increase in world energy demand will be in the developing countries. The share of these countries in world energy consumption will increase to 35 per cent by the year 2010, as compared to 26 per cent in 1990. However, on a per capita basis, only marginal improvement can be expected in the current condition, where the level of energy consumption in the developing world is around 10 per cent of that in the developed market economies.

10. Oil will continue to dominate commercial energy consumption in the developing world. Coal will retain its overall position and it will be of great importance to a few countries, especially China and India. Natural gas

will strengthen its position as the third most important fuel and will be more widely used. The fast growth in electricity consumption, which is a worldwide phenomenon, will continue. In the absence of technological breakthroughs in new and renewable sources of energy, the contribution of such sources to the overall energy picture of the developing world will remain static, although the significance of biomass in rural areas and hydropower for overall electrification will continue. 4/

11. Massive capital investments and the application of modern technologies will be required in the energy sector of the developing countries in order to meet increasing domestic demand. Similar investments will be required in order to augment energy production capacities, particularly in oil and increasingly in natural gas for exports to the developed market economies and other net energy importing countries.

12. In view of the foreign indebtedness of so many of the developing countries, the magnitude of the scarcity of capital, which has extended even to the few traditionally capital-surplus oil exporting developing countries, reduced direct foreign investment and inadequate support from bilateral and multilateral financial sources, new arrangements will be required in order to promote international cooperation in this crucial field of the world economy.

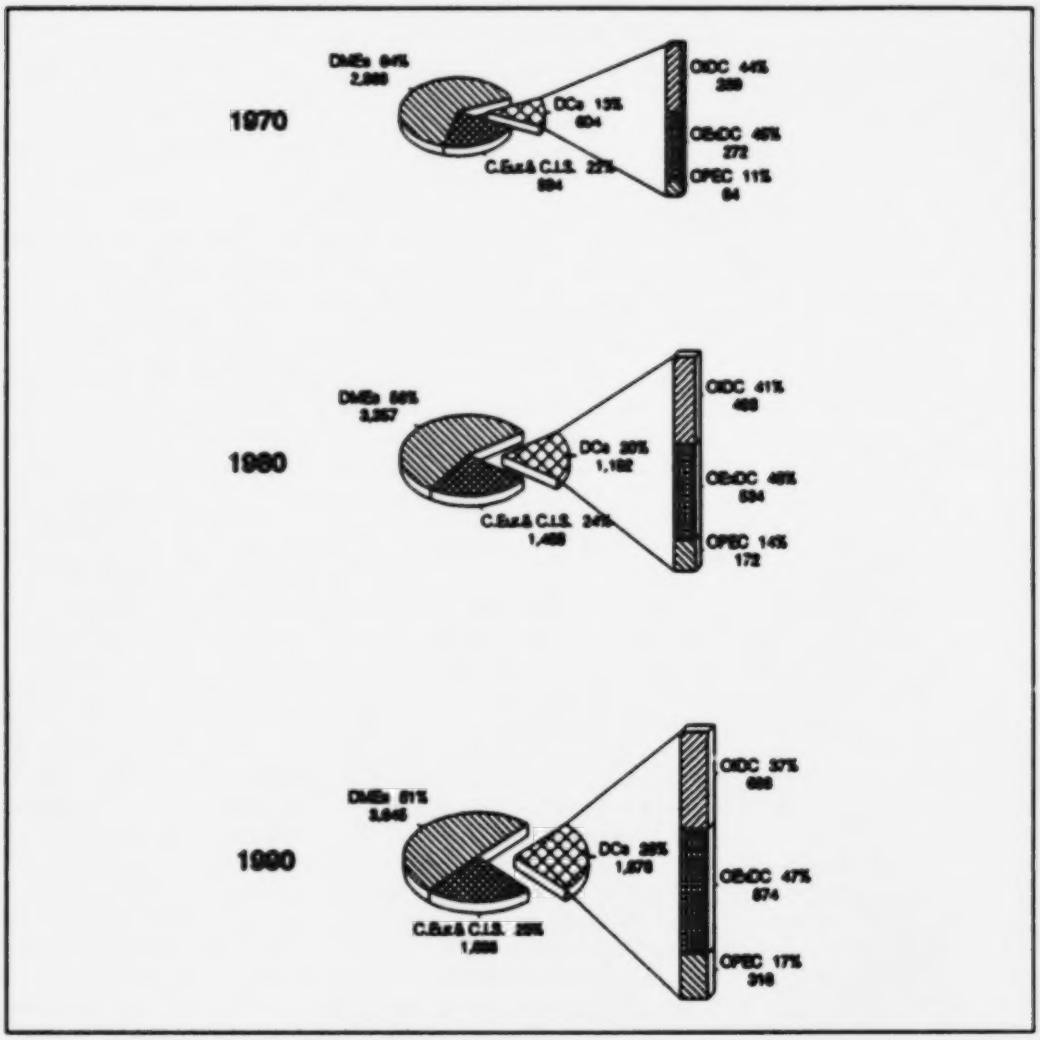
II. TRENDS IN ENERGY CONSUMPTION

13. The share of developing countries in the world commercial energy consumption has grown consistently over the past two decades, from 13 per cent in 1970 to 26 per cent in 1990, as shown in figure 1 and table 1, while the world commercial energy consumption increased by 60.3 per cent to a total of 7,189.8 million metric tons of oil equivalent (mtoe) in 1990.

14. During the period 1980-1990, consumption of commercial energy in developing countries increased by 57.4 per cent for an annual growth rate of 4.2 per cent. In comparison, energy demand in the developed market economies during the same period grew by only 8.6 per cent for an annual growth rate of 0.8 per cent. This disparity in growth patterns of commercial energy consumption is the result of energy conservation and efficiency measures as well as structural changes in the economies of the developed market economies that have experienced considerable economic growth rates with lower energy intensities. In the developing world, however, structural changes in their economies have invariably led to higher energy intensities per unit of economic output. These trends may be expected to continue until certain levels of national income are achieved that may be followed by less energy intensive structures.

Figure 1. Commercial primary energy consumption a/

(Million tons of oil equivalent)



Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

a/ C.Eur = Central Europe
CIS = Commonwealth of Independent States
DCs = Developing countries
DMEs = Developed market economies
OExDCs = Oil exporting developing countries
OIDC = Oil importing developing countries
OPEC = Organization of Petroleum Exporting Countries

Table 1. Commercial primary energy consumption

(Million tons of oil equivalent)

		1970	1980	1985	1989	1990
Developed market economies	Oil	1 432.0	1 665.3	1 493.0	1 613.3	1 600.1
	Gas	659.6	765.2	741.8	804.3	813.8
	Coal	718.4	784.2	880.8	992.7	991.0
	Electricity	77.9	142.1	200.7	231.3	240.5
	Total	2 887.9	3 356.8	3 316.3	3 641.6	3 645.4
Central Europe and the Commonwealth of Independent States	Oil	271.1	465.7	437.0	457.0	440.3
	Gas	192.2	385.6	548.3	623.7	640.9
	Coal	518.1	589.2	600.3	596.0	541.1
	Electricity	12.1	25.0	38.2	46.1	46.1
	Total	993.5	1 465.5	1 623.8	1 722.8	1 668.4
All developing countries	Oil	267.1	554.5	611.5	717.0	742.5
	Gas	49.6	131.9	182.0	254.0	265.0
	Coal	270.5	463.2	644.7	782.0	794.0
	Electricity	16.8	42.4	60.5	71.0	74.5
	Total	604.0	1 192.0	1 498.7	1 824.0	1 876.0
Members countries of OPEC	Oil	37.6	110.6	150.0	170.4	171.1
	Gas	24.2	57.6	81.4	125.7	134.7
	Coal	1.0	1.6	2.6	4.5	4.8
	Electricity	0.8	2.4	3.6	5.2	5.3
	Total	63.6	172.2	237.6	305.8	315.9
Oil exporting developing countries	Oil	70.0	163.6	192.1	230.0	239.7
	Gas	16.8	50.0	59.6	67.5	69.7
	Coal	179.8	310.3	427.7	534.3	545.9
	Electricity	4.9	10.3	15.2	18.1	18.8
	Total	271.5	534.2	694.6	849.9	874.1
Oil importing developing countries	Oil	159.5	280.3	269.4	316.6	331.7
	Gas	8.6	24.3	41.0	60.8	60.6
	Coal	89.7	151.3	214.4	243.2	243.3
	Electricity	11.1	29.7	41.7	47.7	50.4
	Total	268.9	485.6	566.5	668.3	686.0
Total world	Oil	1 970.2	2 685.5	2 541.5	2 787.3	2 782.9
	Gas	901.4	1 282.7	1 472.1	1 682.0	1 719.7
	Coal	1 507.0	1 836.6	2 125.8	2 370.7	2 326.1
	Electricity	106.8	209.5	299.4	348.4	361.1
	Total	4 485.4	6 014.3	6 438.8	7 188.4	7 189.8

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

15. The composition of world commercial primary energy consumption by source and consumption patterns in 1990 by groups of countries are shown in figures 2 and 3. There were marked differences in consumption patterns among the various groups of countries, and among the developing countries the pattern of consumption varied significantly. In the OPEC member countries, oil and gas accounted for practically all of the primary energy consumed. Although coal accounted for a significant proportion in the consumption pattern of the non-OPEC developing countries, it should be noted that its use was dominant mainly in China and India only.

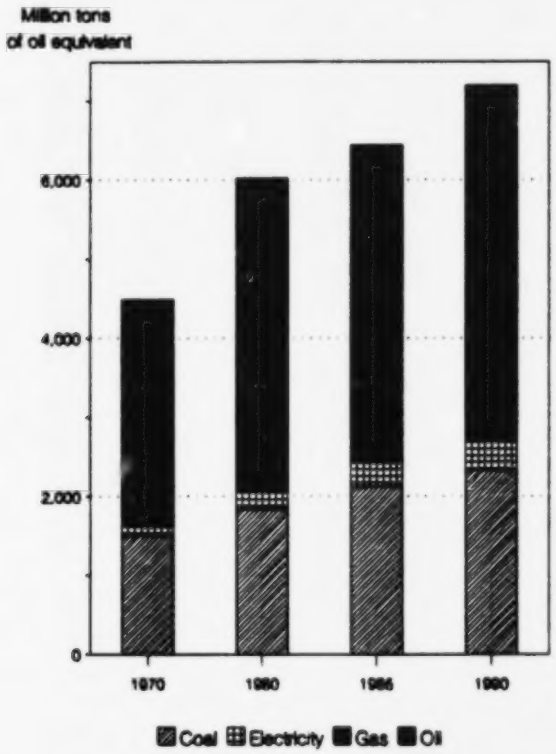
16. The per capita consumption of commercial energy in the developing countries continues to be very low, as shown in figure 4.

17. The level of commercial energy consumption in developing countries in 1990 as compared with 1985 increased by 377 mtoe, with coal contributing to this increase 149 mtoe, oil 131 mtoe, natural gas 83 mtoe and primary electricity 14 mtoe. These increases, except for electricity, were higher than in the developed market economies. Most of the developing countries continue to depend on oil as the major source for their commercial energy requirements: an increasing amount of oil has to be imported.

18. Historic oil demand data for the developing countries consuming more than 200,000 barrels per day of oil and ranked according to their levels of oil demand in 1990 are shown in table 2.

19. About 79 per cent of the oil demand of the developing countries in 1990 was accounted for by the 21 countries listed in table 2. During the period 1985-1990, much of the growth in oil demand was in the Asia and the Pacific region, with Malaysia, Pakistan and Taiwan Province of China registering annual growth rates of over 8 per cent, and the Republic of Korea and Thailand registering over 14 per cent. In China and India, oil demand rose by over 4 per cent annually in the period.

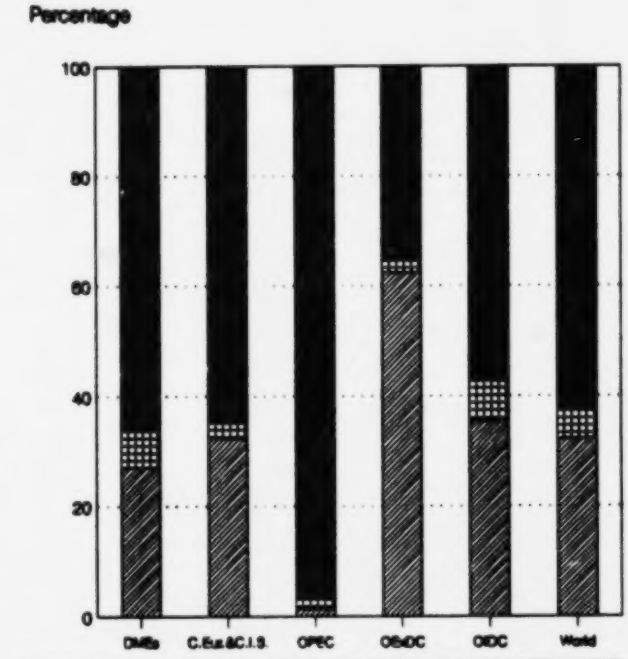
Figure 2. World consumption of commercial primary energy and its composition



	1970	1980	1985	1990	Change in primary energy source			
					1980 / 1970		1990 / 1980	
					mtoe	%	mtoe	%
Oil	1 970	2 686	2 542	2 783	716	36.3	97	3.6
Gas	901	1 283	1 472	1 720	382	42.4	437	34.1
Electricity	107	210	299	361	103	96.3	151	71.9
Coal	1 507	1 836	2 126	2 326	329	21.8	490	26.7

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

Figure 3. Commercial energy consumption patterns 1990, by group of countries a/

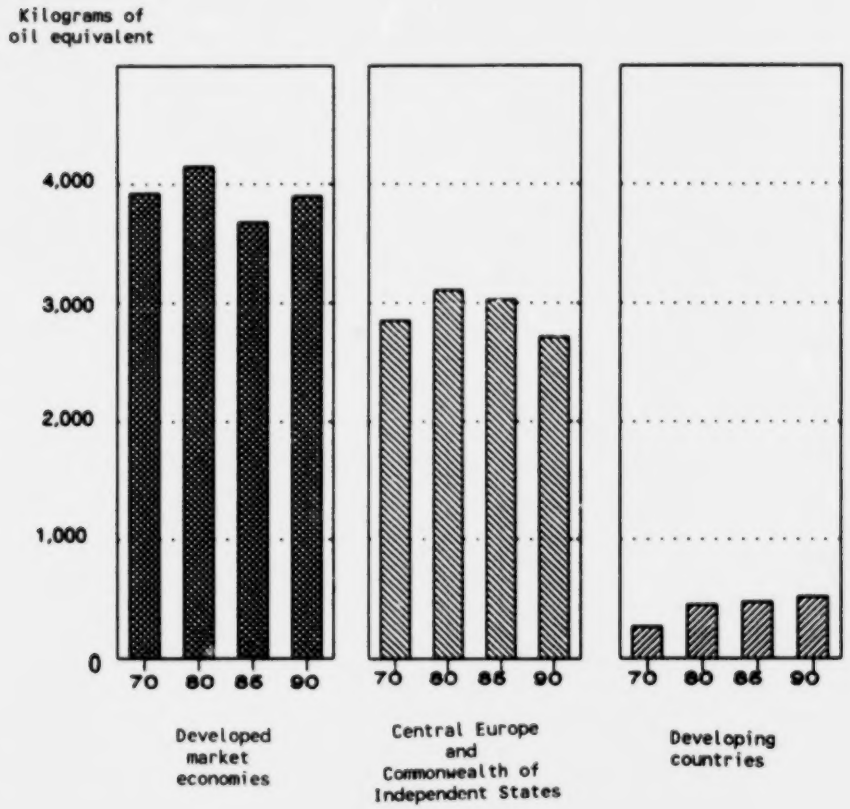


	DMEs	C.Eur.&C.I.S.	OPEC	OExDC	OIDC	World
Oil	43.8	26.3	54.1	27.4	48.3	38.7
Gas	22.4	38.4	42.6	7.9	8.8	23.8
Electricity	6.6	2.8	1.7	2.2	7.3	5.1
Coal	27.1	32.4	1.5	62.4	35.6	32.3

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

a/ C.Eur = Central Europe
CIS = Commonwealth of Independent States
DMEs = Developed market economies
OExDCs = Oil exporting developing countries
OIDC = Oil importing developing countries
OPEC = Organization of Petroleum Exporting Countries

Figure 4. Per capita consumption of primary commercial energy



Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

Table 2. Oil demand in selected developing countries

	Thousands of barrels per day				Growth rates (percentage)		
	1980	1985	1989	1990	1980-1985	1985-1990	1989-1990
China	1 221	1 436	1 780	1 803	2.9	4.3	1.3
Mexico	1 083	1 258	1 458	1 524	2.7	3.5	4.5
Brazil	948	793	967	961	-2.7	3.5	-0.6
India	508	710	912	912	6.6	4.8	0.0
Republic of Korea	454	445	665	824	-0.4	14.2	24.0
Iran (Islamic Republic of)	493	602	786	807	3.7	5.7	2.7
Saudi Arabia	331	713	713	739	19.2	0.6	3.6
Indonesia	421	487	493	503	2.6	0.5	1.9
Taiwan Province of China a/	369	321	472	480 b/	-2.2	9.4	...
Thailand	230	215	333	400	-1.1	14.3	20.2
Egypt	237	316	379	390	5.6	3.9	2.8
Argentina	452	361	370	345	-3.4	-0.7	-6.9
Venezuela	354	406	345	342	2.4	-2.6	-0.8
Malaysia	153	181	227	275	3.0	8.7	21.4
Philippines	206	140	205	213	-5.3	8.7	4.1
Nigeria	136	148	220	212	1.5	7.2	-3.6
Singapore	167	152	187	211	-1.5	6.5	12.5
Cuba	189	194	221	210	0.5	1.4	-5.0
Iraq	124	132	246	209	1.1	9.7	-15.0
Pakistan	87	136	187	205	9.3	8.5	9.9
Total	8 164	9 146	11 166	11 565	2.0	3.7	3.5

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

a/ Data from Annual oil market report, 1990, International Energy Agency.

b/ Estimate.

III. TRENDS IN ENERGY EXPLORATION, DEVELOPMENT AND PRODUCTION

A. Crude oil

20. Although oil supplies have become geographically more diversified over the past 20 years, with commercial deposits found in around 80 countries, the world's remaining oil is very unevenly distributed, with most of it located primarily in the Persian Gulf area. In terms of proved reserves, the Middle East, in particular in the Persian Gulf area, holds about two thirds of the world's reserves (see fig. 5). 5/ The large Arabian-Iranian downwarp sedimentary basin is the most petroliferous geological province in the world.

21. As shown in table 3 and figure 6, oil supplies from the developing countries have increased substantially over the past 20 years. Among the non-OPEC oil exporting developing countries, production has more than tripled (from 0.972 to 3.789 billion barrels per year between 1970 and 1991), improving their share of the total world's oil production from 5.9 per cent to 17.3 per cent. In the energy deficient developing countries, oil production has almost doubled, to over 0.764 billion barrels a year. 6/

22. Current total annual oil production from OPEC is about the same level as in 1970, but its share of the world total production has declined from a high of 51.2 per cent to 38.5 per cent. Nevertheless, the share of OPEC countries is expected to increase because of the magnitude of their proved reserves.

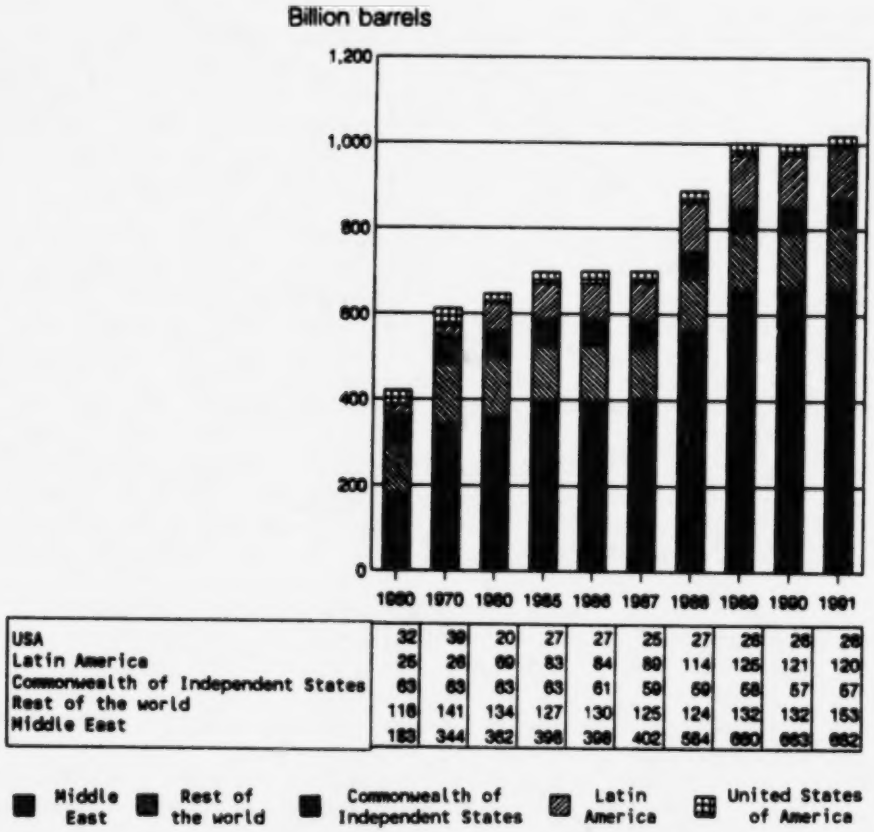
23. Increased production from non-OPEC countries between the mid-1970s and mid-1980s was based largely on substantial discoveries in four major areas, the North Sea, Mexico, Alaska and the Commonwealth of Independent States.

24. Most of the world's oil production comes from super giant fields containing in excess of 5 billion barrels of recoverable oil each. World wide only 38 of these super giant fields have been discovered but they contain over half of all the oil discovered to date. Although these 38 oil fields produced much the same in 1991 as in 1975, there is clear evidence that a number of those fields are already in decline. For example, Prudhoe Bay in Alaska and Samatlor in Russia have entered their decline phase, as has the developed part of the Ghawar field in Saudi Arabia. Also, some of the fields in the Islamic Republic of Iran have reportedly encountered problems with gas handling and water breakthrough. 7/

25. Another 300 or so giant oil fields contributed 30 per cent of the world proved reserves. The remaining 15 per cent or so of the world's reserves are contained in much smaller fields and the large majority of those fields do not significantly impact on world oil production.

Figure 5. World proved oil reserves

(At year end)



	1980	1970	1980	1985	1986	1987	1988	1989	1990	1991
USA	32	39	20	27	27	25	27	26	26	26
Latin America	25	28	69	83	84	89	114	125	121	120
Commonwealth of Independent States	63	63	63	63	61	59	59	58	57	57
Rest of the world	116	141	134	127	130	125	124	132	132	153
Middle East	183	344	362	398	398	402	564	660	663	662

Source: United Nations, Department of Economic and Social Development, based on the Oil and Gas Journal Energy Database.

Table 3. World crude oil production

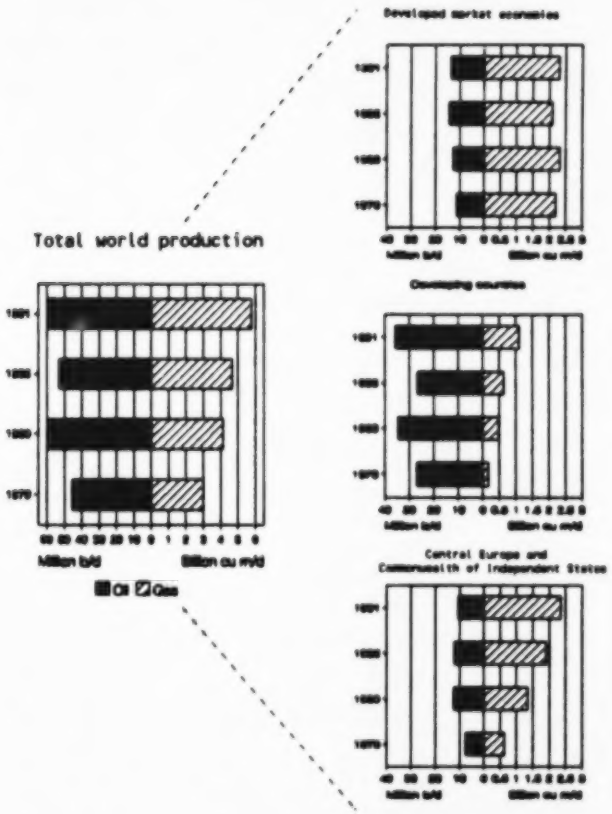
(Thousands of barrels)

Country	1970	1980	1985	1989	1990	1991
OPEC countries	8 508 939	9 781 765	5 869 571	7 922 802	8 476 760	8 521 574
Share of world total a/	51.2	45.0	30.2	36.6	38.5	39.0
Oil exporting developing countries	972 463	2 438 974	3 135 439	3 540 503	3 646 058	3 789 138
Share of world total a/	5.9	11.2	16.1	16.3	16.6	17.3
Energy-deficient developing countries	318 944	401 639	704 959	706 350	763 288	764 383
Share of world total a/	1.9	1.8	3.6	3.3	3.5	3.5
Developed market economies	4 102 900	4 598 943	5 242 650	4 926 110	4 844 572	4 973 673
Share of world total a/	24.7	21.1	27.0	22.7	22.0	22.7
Central Europe and Commonwealth of Independent States	2 707 504	4 525 270	4 466 163	4 577 465	4 285 465	3 820 820
Share of world total a/	16.3	20.8	23.0	21.1	19.5	17.5
World total	16 610 750	21 746 591	19 418 782	21 673 230	22 016 143	21 869 887

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues, and Oil and Gas Journal, 30 December 1991.

a/ Percentage.

Figure 6. World oil and gas production a/



Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

a/ b/d = barrels per day
cu m/d = cubic metres per day

26. Oil production is distributed widely, as shown in table 4, where the countries are ranked in order of their projected ultimate recovery of 5 billion barrels and more. The oil contained in proved reserves at present could lead to a perception of an enormous resource base. However, if there are no additions to these reserves from new discoveries, maintaining and increasing production would come from additions that are incremental to existing production. Production from an oil field cannot be sustained indefinitely as production will reach a natural plateau and then decline. Even the largest of oilfields cannot sustain plateau production indefinitely.

27. In the short term production capacity can be increased through over-production, an accelerated rate of depletion of developed reserves, and by bringing back onstream shut-in production capacities, especially those in the OPEC Persian Gulf countries. This was the case in making up the shortfall in supply from the loss of production of about 4.3 mb/d from Kuwait and Iraq during the Persian Gulf crisis. Shut-in production capacity was rushed into service in the latter part of 1990 and early 1991. The need to make up the supply deficit allowed Saudi Arabia, the United Arab Emirates and other countries like Nigeria and Venezuela to produce at or near capacity. Saudi Arabia increased its production to 8.5 mb/d in the second half of 1990, and to an average daily production of 8.2 mb/d in 1991 from an average daily production of only 5.13 mb/d in 1989. With the loss of production from Kuwait and Iraq replaced and oil demand stalling for economic reasons, the oil market in 1991 was almost in balance, moderating the volatility of crude oil prices, which reached a peak of US$ 41/barrel not long after the Iraqi invasion but dropped to US$ 20/barrel through the end of 1991. The replacement production capacity has remained on stream since, albeit with little to spare.

28. Although the magnitude of world proved oil reserves has increased considerably during the past 30 years (see figure 6), most of the increases, especially during the second half of the 1980s, were due to revisions of estimates rather than the discovery of new oilfields. In fact new oil found has been much lower than total production during the period.

29. The primary reasons for the decline in the level of new field discoveries are the substantial decrease in exploration spending and the location of exploration activity. During the period 1985-1990, it is estimated that exploration spending by the largest 30 oil companies fell by 25 per cent. Major oil companies have been replacing their production in recent years mainly through acquisition of reserves. 8/

30. The location of exploration activity is also crucial. During the past decade exploration activity has been concentrated in and around known areas, in many cases mature areas where the largest fields had already been found. New oil and gas reserves will not be found unless new areas are explored or oil companies have sufficient incentives to explore the more costly or technically complex possibilities in known provinces.

Table 4. World oil distribution

(Billion barrels)

Country	Cumulative production	1991 production	Proved reserves	Reserves: production ratio	Probable a/ reserves addition	Remaining oil	Total oil
Saudi Arabia b/	62.4	3.03	257.8	86:1	42	299.8	362.20
Commonwealth of Independent States	112.2	3.74	57.0	15:1	124	181.0	293.20
United States of America	158.0	2.69	26.3	10:1	71	97.3	255.30
Iran, Islamic Republic of b/	39.1	1.22	92.9	76:1	52	144.9	184.00
Iraq b/	22.4	1.03 c/	100.0	100:1	45	145.0	167.40
Venezuela b/	44.7	0.85	59.0	69:1	38	97.0	141.70
Kuwait b/	26.5	0.64 c/	94.0	147:1	4	98.0	124.50
United Arab Emirates b/	12.6	0.88	98.1	111:1	49	147.1	159.70
Mexico	17.5	1.01	52.0	51:1	52	104.0	121.50
China	15.7	1.02	24.0	24:1	48	72.0	87.70
Canada	14.3	0.56	5.6	10:1	33	38.6	52.90
Libyan Arab Jamahiriya b/	17.4	0.55	22.8	41:1	8	30.8	48.20
Nigeria b/	13.4	0.68	17.9	26:1	9	26.9	40.30
Indonesia b/	13.7	0.52	6.6	13:1	10	16.6	30.30

Table 4 (continued)

Country	Cumulative production	1991 production	Proved reserves	Reserves: production ratio	Probable a/ reserves addition	Remaining oil	Total oil
Norway	4.0	0.68	7.6	11:1	22	29.6	33.60
United Kingdom of Great Britain and Northern Ireland	10.3	0.65	4.0	6:1	13	17.0	27.30
Algeria b/	8.3	0.29	9.2	32:1	2	11.2	19.50
Egypt	5.2	0.32	4.5	14:1	5	9.5	14.70
India	3.0	0.24	6.1	25:1	3	9.1	12.10
Brazil	2.9	0.23	2.8	12:1	8	10.8	13.70
Australia	3.3	0.20	1.5	8:1	5	6.5	9.80
Oman	3.3	0.26	4.3	17:1	2	6.3	9.60
Argentina	5.3	0.17	1.1	19:1	2	3.1	8.40
Malaysia	2.2	0.23	3.1	13:1	4	7.1	9.30
Qatar b/	4.4	0.14	3.7	26:1	2	5.7	10.10
Colombia	3.1	0.16	2.0	12:1	2	4.0	7.10
Tunisia	0.8	0.04	1.7	43:1	4	5.7	6.50
Romania	4.7	0.05	1.2	24:1	1	2.2	6.90
Yemen	0.2	0.07	4.0	57:1	2	6.0	6.20
Ecuador b/	1.7	0.11	1.6	14:1	3	4.6	6.30
Angola	1.7	0.18	1.8	10:1	2	3.8	5.50

Table 4 (continued)

Country	Cumulative production	1991 production	Proved reserves	Reserves: production ratio	Probable a/ reserves addition	Remaining oil	Total oil
Brunei Darussalam	2.0	0.05	1.4	28:1	2	3.4	5.40
Peru	1.8	0.04	0.4	10:1	3	3.4	5.20
Trinidad and Tobago	2.6	0.05	0.5	10:1	2	2.5	5.10

Source: United Nations, Department of Economic and Social Development, based on the report, "Dominant Middle East oil reserves critically important to world supply", by J. P. Riva Jr., Oil and Gas Journal, 23 September 1991.

Note: Some countries, like Gabon and Cameroon, are not mentioned in the table owing to lack of information on probable reserves addition.

a/ Probable reserves addition are comprised of estimated field growth and undiscovered recoverable resources.

b/ OPEC member country.

c/ Annual oil productions of Iraq and Kuwait shown are for 1989, that is, prior to the Gulf War, for more realistic levels.

31. The geology of almost all of the world's sedimentary basins is at least partially known. Although substantial new oil remains to be discovered, geological inferences indicate that it is likely to be in smaller accumulations and widely scattered.

32. Many sedimentary basins in the developing world remain under-explored. This is due to several factors, including geological prospectivity with probability of smaller deposits, political instability, jurisdictional disputes with neighbouring States, pricing policies for domestic marketing and comparatively inadequate incentives for direct foreign investment in this sector. Yet for many oil importing developing countries even small oil discoveries could make all the difference in meeting their energy requirements without intolerable foreign exchange problems.

1. Member countries of OPEC

33. During the second half of the 1980s, large increases in oil reserves were announced in some member countries of OPEC: Saudi Arabia, Venezuela, Islamic Republic of Iran, Iraq, Libyan Arab Jamahiriya and United Arab Emirates. In most cases these large increases in the reserves were not related to new field discoveries. They were based mainly on increasing recovery factors in existing fields. Production capacities in several OPEC countries, especially those in the Persian Gulf, are not limited by the physical constraints of reserves. In most of these countries oil output is limited only by voluntary ceilings based on world demand for OPEC oil.

34. Prior to the Gulf War, OPEC countries had planned to boost their oil output capacity in anticipation of an expected upturn in world oil demand, which would be met largely from OPEC supplies. Plans by the OPEC Persian Gulf countries were to add some 6.05 mb/d of new capacity by 1995 and a further 1.9 mb/d by the year 2000. 9/ Many of these projects, especially in Saudi Arabia, are now being implemented. Table 5 reflects some of these trends.

35. During the period 1982-1990, seismic activity was at a record level in 1990, with about 160,078 line-kilometres surveyed, almost double the level of 1986. Similarly, exploratory wells completed, 310 wells in 1990, represented a gain of 28 per cent compared with the level in 1986. Development wells completed also rose sharply to 1,178 wells in 1990, largely from increased drilling in Indonesia and Venezuela. The rising trend in exploration and development activities in OPEC countries is expected to continue in order to maximize sustainable crude oil production to meet the projected growth in world demand, coupled with declining production from the Commonwealth of Independent States and the United States of America. Clearly, OPEC alone has the capacity for expansion to meet any significant growth in world oil demand. Moreover, OPEC has control of the lowest cost oil, which, together with its surplus supply situation, would imply that OPEC production capacity and capacity utilization remain the major determinants of the price of oil.

Table 5. Exploration and development indicators of OPEC member countries, (1982-1990)

Year	Licensed area (thousand sq km)	Seismic activity (line-km)	Exploratory drilling (number of wells)	Development drilling (number of wells)
1982	2 707	137 670	606 a/	2 705 a/
1983	2 565	128 554	474	2 031
1984	2 414	116 186	454	1 577
1985	2 178	101 923	358	1 224
1986	2 312	86 971	242	946
1987	4 202	91 367	258	803
1988	4 384	113 346	267	960
1989	4 530	143 228	285	969
1990	3 716	160 078	310	1 178

Source: World Petroleum Trends 1991, Petroconsultants (United Kingdom) Ltd.

a/ Includes unusually high level of drilling in Venezuela in the Orinoco tar belt for heavy oil.

36. Production expansion projects remain the focus among the OPEC countries and in some countries exploration and production sectors have been opened to foreign participation. Venezuela has announced plans to open development of marginal fields to both private and overseas interests for the first time since nationalization of its oil industry in 1976.

37. The Islamic Republic of Iran continued to restore its production capacity to about the level prior to the Iran-Iraq war, when peak output was about 5 mb/d; however, drilling has remained at a low level. Restoration of offshore production was being emphasized. Several new drilling rigs have been purchased from Canada and the United States, which would lead to an acceleration of the programme for capacity expansion. In addition protocols have been signed with foreign oil companies for offshore development.

38. The potential production levels of the OPEC member countries can be many and varied in relation to future patterns of supply and demand, prices and political and economic acceptability. Table 6 shows estimates of effective production capacities for 1990 and the year 2000.

Table 6. Estimated effective and potential oil production capacity of OPEC member countries

(Million b/d)

Country	Estimated effective capacity	Possible capacity in 2000
Algeria	1	1
Ecuador	0.5	0.5
Gabon	0.3	0.3
Indonesia	1.5	1.5
Iran, Islamic Republic of	3	4
Iraq	3.5	5
Kuwait	2	3
Libyan Arab Jamahiriya	1.5	2
Nigeria	2	2
Qatar	0.5	0.5
Saudi Arabia	10	12
United Arab Emirates	2	2.5
Venezuela	2.5	3

Source: United Nations, Department of Economic and Social Development, based on the report, "Oil export capacity in OPEC countries: constraints and prospects", by N. Abi-Aad, Petroleum Review, March 1991.

2. Non-OPEC oil exporting developing countries

39. The share of world oil production of 19 non-OPEC oil exporting developing countries has increased markedly in the past 20 years.

40. Exploration and development activities in these oil exporting developing countries have been on the rise during the second half of the 1980s. Since 1986 licensed acreage increased by 80 per cent and seismic activity by 71 per cent. However, exploration and development drilling has remained static (see table 7).

41. Exploratory and development well completions have increased substantially in China since 1987 when such information and data were first made available. In 1990, combined total well completions in China were estimated at 7,627 wells, by far the largest number of wells drilled in any developing country. China has opened discussions with foreign companies covering participation in exploration and development in the Xinjiang Region in the far western part of the country, a significant development, as previously foreign participation was limited mainly to offshore activities. The Tarim, Turpan and Junggar basins in the Region are expected to provide significant new reserves for the next century. Several discoveries have been announced in the Tarim basin and an oil discovery was made in the Turpan basin in early 1991.

42. Oil output from Malaysia has been increasing substantially, having risen by about 138 per cent over the last decade. Peak production at the present time can be as high as 650,000 b/d, as demonstrated in 1990 when output was raised to meet the shortfall caused by the Persian Gulf crisis.

43. The Syrian Arab Republic has also made considerable gains in oil output, which has increased continuously in the past decade.

44. Mexico, despite its substantial proved reserves, had been unable in recent years to expand production because of deep indebtedness and lack of foreign exchange. This was at the time of resumption of economic growth and consequent increases in domestic oil demand. It has been reported that Pemex, the national oil company of Mexico with exclusive operations in the country, was able to invest only about US$ 1 billion annually during the late 1980s as compared with US$ 6 billion in 1981. In 1991 Pemex secured a US$ 1.3 billion loan guarantee from the Export-Import Bank of the United States to call in companies from the United States for four big new exploration projects. Pemex was ultimately looking to secure as much as US$ 5.8 billion in guarantees for 16 projects from the same source. Similar arrangements with 25 other national export-import banks were contemplated. 10/

Table 7. Exploration and development indicators in non-OPEC oil exporting developing countries, 1982-1990

Year	Licensed area (thousand sq km)	Seismic activity (line-km)	Exploratory drilling (number of wells)	Development drilling (number of wells)
1982	1 324	146 402	455	1 485
1983	1 222	121 461	369	1 310
1984	1 222	111 368	381	1 389
1985	1 106	127 528	406	1 128
1986	1 046	111 693	350	1 039
1987	1 330	112 314	354 (1 525) a/	850 (5 706) a/
1988	1 523	157 584	352 (1 642) a/	954 (5 809) a/
1989	1 716	230 481	339 (1 665) a/	884 (5 860) a/
1990	1 872	191 028	370 (1 697) a/	750 (5 930) a/

Source: World Petroleum Trends 1991, Petroconsultants (United Kingdom) Ltd.

a/ Figures in parentheses are exploratory and concern development wells completed in China, which data were not available prior to 1987. These data are presented separately to avoid an anomalous increase in the number of wells completed.

45. Viet Nam, a recent entry into the ranks of oil exporters, has made substantial gains in its oil output, with an average of about 65,000 b/d in 1991. Production is from offshore fields operated by Vietsovpetro, the only company producing oil currently. Production is expected to reach 120,000 b/d by 1995. Many foreign oil companies, including national oil companies from developing countries, Petronas of Malaysia, Pertamina of Indonesia and so on, have expressed interest in the offshore areas. Significant increases in Viet Nam's production capacity are to be expected in the near future.

46. There has been a wide degree of variation in the replacement of reserves in the last few years among the major non-OPEC oil exporting developing countries. The greatest successes were registered in the Syrian Arab Republic and Yemen, where exploration intensity has been very high recently. Less successful efforts have been registered in Angola, Egypt and Malaysia.

3. Energy-deficient developing countries

47. Other than the 32 oil exporting developing countries - 13 OPEC member countries and 19 non-OPEC oil exporting countries - the remainder of the developing countries and territories, over 100 of them, are net importers of oil. The estimated total import of oil of the energy-deficient developing countries was about 1.7 billion barrels in 1990 (4.5 mb/d), and by far the largest part of the supply was from OPEC Persian Gulf countries.

48. Of this large number of energy-deficient developing countries only 19 have any oil production capacity, ranging in size from world class producers to producers of a few hundred barrels a day or less. The share of total world oil production of this group of oil producing/importing developing countries was about 3.5 per cent in 1991, having retained this share more or less since 1985.

49. Among the large group of non-oil producing developing countries, only 20 had any petroleum exploration activities in recent years.

(a) Oil producing/importing developing countries

50. The total production of this group of oil producing/importing developing countries increased by about 140 per cent since 1970 and reached a level of about 0.764 billion barrels (2.09 mb/d) in 1991. However, almost all of this gain was attributable to the three largest producers, Argentina, Brazil and India. In 1991, production from these three countries, 0.646 billion barrels (1.77 mb/d), amounted to about 85 per cent of the total production of the group of oil producing/importing countries.

51. As shown in table 8, seismic activity has increased considerably in these countries since 1985. However, both exploration and development drilling has declined, mainly because of financing difficulties, especially in Brazil and India.

Table 8. Exploration and development indicators in oil producing/importing developing countries, 1982-1990

Year	Licensed area (thousand sq km)	Seismic activity (line-km)	Exploratory drilling (number of wells)	Development drilling (number of wells)
1982	3 397	196 873	705	1 748
1983	3 077	169 092	823	2 002
1984	3 869	168 786	699	2 115
1985	3 543	171 239	712	2 448
1986	3 578	194 852	570	2 270
1987	3 268	250 682	594	2 327
1988	2 804	297 403	703	2 173
1989	3 346	295 696	646	1 898
1990	4 457	261 608	648	1 627

Source: World Petroleum Trends, 1991, Petroconsultants (United Kingdom) Ltd.

52. Oil production in India, after showing steady gains during the past decade, declined by 4.7 per cent in 1991. This decline was due more to ageing equipment and poor storage and transport facilities than to constraints in production capacity. India's oil output is expected to increase to about 870,000 b/d by the end of fiscal year 1995/96. However, India's oil consumption is expected to reach 1.73 mb/d by then. 11/ In 1990, oil imports cost about US$ 5.5 billion, or about a third of India's foreign exchange outlay. In order to offset the rise in oil import volume, India has to accelerate expansion of its domestic production capacity and to that end plans are being made to intensify exploration and development activities and to extend the search to deepwater, difficult and remote areas with increased foreign participation.

53. In Argentina, the oil and gas industry, particularly the upstream sector, has been deregulated. A large number of the state oil company fields have been privatized, including producing fields with significant proved reserves. It is estimated that 40 per cent of Argentina's oil industry is now in private hands. Much of the properties sold are under-explored and/or underdeveloped and thus there is high potential for increased exploration and production spending. Furthermore, under draft legislation that is being submitted for congressional approval, the state oil company itself will be partially privatized. Oil production in Argentina has increased continuously over the past five to six years. In 1991 total output was about 0.178 billion barrels

(487,300 b/d), which was, however, still below the level of 0.185 billion barrels (505,600 b/d) in 1980. Yet in 1990 Argentina became a net exporter of oil.

54. Oil production in Brazil had increased annually since 1980, having reached a historically high level of about 0.232 billion barrels in 1991 (635,800 b/d). The national oil company, Petrobras, an acknowledged leader in deepwater technology, brought onstream part of the giant Marlin deepwater field in 1991. In 1991, exploration risk contracts came to an end and Petrobras once again has sole responsibility for exploration and production activities in Brazil.

55. Pakistan, Thailand and Turkey also registered substantial gains in their outputs in 1991. Pakistan's output of about 69,500 b/d in 1991 represented a gain of about 16 per cent over the previous year and Thailand's average daily production in 1991 increased 13.7 per cent to about 46,600 b/d and a significant gain of about 24 per cent was registered in Turkey's oil output in 1991 for a daily average of 86,700 b/d.

56. Pakistan continues to attach very high priority to the development of its energy sector, particularly oil and gas exploration and development to reduce oil imports. Recently, Pakistan has negotiated loans and co-financing arrangements with the Asian Development Bank and the World Bank for development of oil and gas fields and the related infrastructure. In Turkey, a new exploration programme in the Black Sea has started and the development of oilfields in the southeastern part of the country discovered in 1989 could lead to further additions to its production capacity. In Thailand, new concessions, both on land and offshore, continue to be opened for exploration and development. Meanwhile, a number of oil companies have applied for permission to start production from their recent onshore discoveries that would lead to a significant increase in total oil output.

57. In most of the other countries of this group, concessions are being awarded increasingly to foreign oil companies and in a number of those countries either discoveries or encouraging oil and gas shows have prompted an increase in exploration activity. 12/

(b) Non-oil producing developing countries

58. Exploration activity in this group of countries continued at a comparatively low level, other than in Papua New Guinea where oil production and export are expected to start during the latter half of 1992.

59. As shown in table 9, licensed acreage and seismic activity continued to decline in the past few years and the trend is likely to continue. The sudden increase in exploratory drilling completions in 1989 and 1990 was attributable in the main to the high number of wells completed in Papua New Guinea, where exploration intensity has been at high levels.

Table 9. Exploration and development indicators in non-oil producing developing countries, 1982-1990

Year	Licensed area (thousand sq km)	Seismic activity (line-km)	Exploratory drilling (number of wells)	Development drilling (number of wells)
1982	2 278	41 239	44	0
1983	1 809	50 402	33	0
1984	2 057	33 095	23	4 a/
1985	1 986	24 784	34	13 b/
1986	1 842	30 148	18	24 b/
1987	1 977	41 032	13	0
1988	1 844	24 032	23	0
1989	1 873	20 901	41	1 c/
1990	1 611	21 887	38	2 c/

Source: World Petroleum Trends 1991, Petroconsultants (United Kingdom) Ltd.

a/ Development wells completed in the Sudan, although no production was scheduled.

b/ Development wells completed in Yemen, which became an oil exporter in 1987.

c/ Development wells completed in Mozambique, although no production was scheduled.

B. Natural gas

60. World recoverable reserves of natural gas, in the long term, are of an equal magnitude to oil reserves and it is generally believed that much more gas will be found as exploration for it becomes as profitable as it is for oil. Proved recoverable reserves of natural gas are estimated at 112 trillion cubic metres, or 734 billion barrels of oil equivalent.

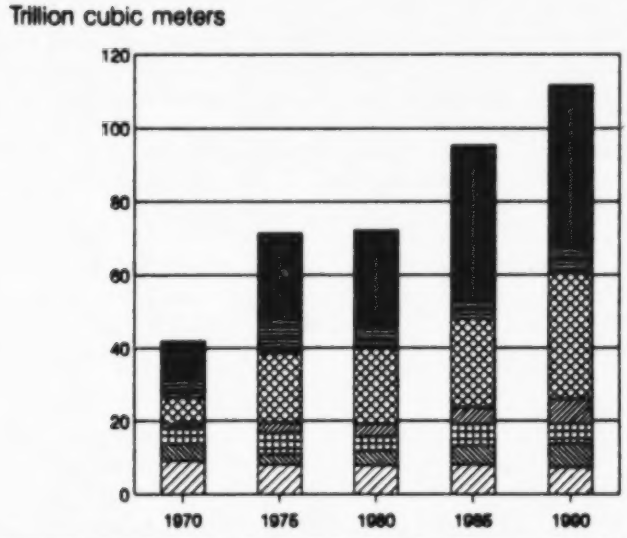
61. A growing number of developing countries have proved gas reserves that have not been developed, especially in Africa. Others, as in the Middle East, have barely begun to exploit their considerable reserves. Many developing countries face major obstacles in developing their gas reserves because of lack of markets and/or requirements for heavy front-end investments in the necessary infrastructure.

62. The magnitude of natural gas reserves has risen steadily during the past two decades, as shown in figure 7. This growth is particularly marked in the Commonwealth of Independent States and the Middle East; these two regions account for two thirds of the world natural gas reserves. Almost 37 per cent of the total proved recoverable reserves of natural gas in the world is located in the Commonwealth of Independent States, primarily in Russia, with about 41 trillion cubic metres. The Commonwealth of Independent States continues to lead in production, consumption and export of natural gas and it is unlikely to reach its peak until well into the next century. Among the developing countries, the Islamic Republic of Iran has the largest proved reserves of natural gas, at about 13.8 trillion cubic metres, or 12.5 per cent of the world's total. The Islamic Republic of Iran has resumed its export of gas to the Commonwealth of Independent States and has been exploring the possibility of pipeline exports to Central Europe via Turkey and to Asia through Pakistan. Gas production in the Islamic Republic will increase significantly with the rise in domestic consumption as a huge gasification programme is under way. Domestic pipelines have been laid and a gas processing plant with a rated capacity of 85 billion cubic metres a year has been inaugurated.

63. In Africa, Algeria has embarked on a renovation and expansion of its gas production facilities, including natural gas liquefaction, and has directed the main thrust of its marketing to the western pipeline to Spain via Morocco and Gibraltar, while increasing the capacity of the Trans Med pipeline to Italy to 16 billion cubic metres a year. Elsewhere in Africa, Nigeria has begun building industrial and domestic markets, having started construction of a pipeline from the fields in the delta to Lagos, towards a target market of 15 billion cubic metres a year. A major liquefied natural gas (LNG) project for export to Europe is under consideration. Many of the central and southern African countries have natural gas reserves that are not being exploited as yet, although small projects involving use of natural gas are being implemented.

Figure 7. World proved natural gas reserves

(At year end)



Central Europe and Commonwealth of Independent States	9.89	23.74	26.21	41.93	43.77
Africa	5.55	8.96	5.89	5.24	7.47
Middle East	6.68	18.89	20.72	24.34	34.39
Asia and the Pacific	1.89	3.25	3.59	4.65	6.96
Western Europe	4.13	5.63	3.81	5.79	5.37
Latin America	4.68	2.81	4.06	5.18	6.64
North America	9.12	8.11	7.86	8.11	7.26

North America Latin America Western Europe Asia and the Pacific

Middle East Africa Central Europe and Commonwealth of Independent States

Source: United Nations, Department of Economic and Social Development, based on the Oil and Gas Journal Energy Database.

64. In the Asia and Pacific region, natural gas production continues to rise, especially from offshore fields in Brunei Darussalam, India, Indonesia, Malaysia and from Australia's North-West Shelf. Gas is marketed mainly as LNG rather than pipeline gas; LNG has a virtual monopoly of the trade in the region, with Japan as the world's largest LNG consumer. Indonesia, Malaysia and Brunei Darussalam are the leading suppliers of LNG in the region, to be joined by Australia's North-West Shelf, and there is more than sufficient capacity in those countries to meet considerable increases in LNG demand. A trans-ASEAN (Association of South-East Asian Nations) pipeline, connecting Thailand, Malaysia, Singapore, Indonesia and the Philippines, linking the five countries into a single gas grid capable of transporting up to 20 billion cubic metres of gas a year, is being studied.

65. In Latin America, several countries have increased their natural gas reserves substantially and production has increased by 43 per cent during the past decade with significant gains in production in Argentina, Bolivia, Brazil, Colombia and Mexico. In a number of countries a large part of the gas was re-injected for reservoir pressure maintenance.

66. In Argentina the State-owned Gas del Estado (GDE) is being privatized and contract negotiations and transfer of business units could be complete by the end of 1992. The natural gas pipeline system consists of 7,900 miles of main line delivering 67.9 million cubic metres (2.4 billion cubic feet) a day.

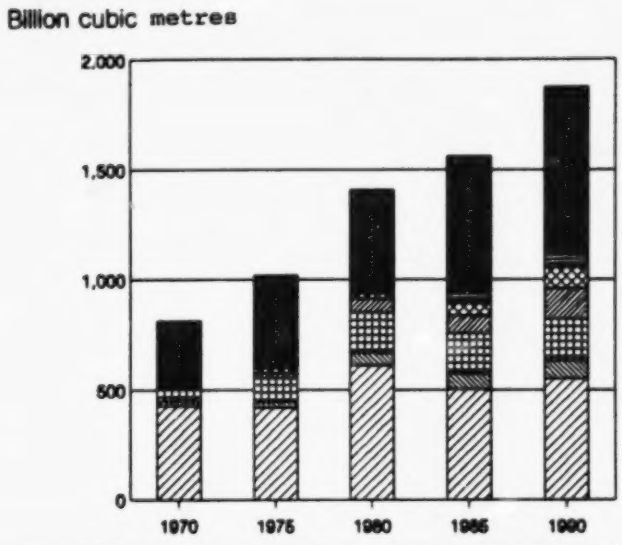
67. In Venezuela, three international companies will be forming a consortium with Lagoven, a subsidiary of Petroleos de Venezuela, the national oil company, to develop the natural gas resources on the Paria peninsula on the north-western coast. The project is expected to involve an overall investment of around US$ 3 billion for export of 4.4 million tons of LNG annually beginning in 1996.

68. The United States of America and the Commonwealth of Independent States are the main natural gas producers in the world. While the production in the United States has increased during the past 20 years, reserves replacement has lagged significantly, as shown in figures 7 and 8. During the same period, in the Commonwealth of Independent States, gas production has more than tripled and the proved reserves increased by more than fourfold.

69. Worldwide, natural gas production has more than doubled since 1970 and new discoveries and increased estimates of existing reserves continued to outpace production, leaving total world reserves at the end of 1990 at 112 trillion cubic metres.

70. As shown in figure 9, gas consumption has increased steadily in all areas over the past two decades and currently natural gas provides about 24 per cent of all commercial energy. Gas utilization includes direct supply as fuel, electricity power generation and chemical feedstock for ammonia, methanol and petrochemicals.

Figure 8. World natural gas production

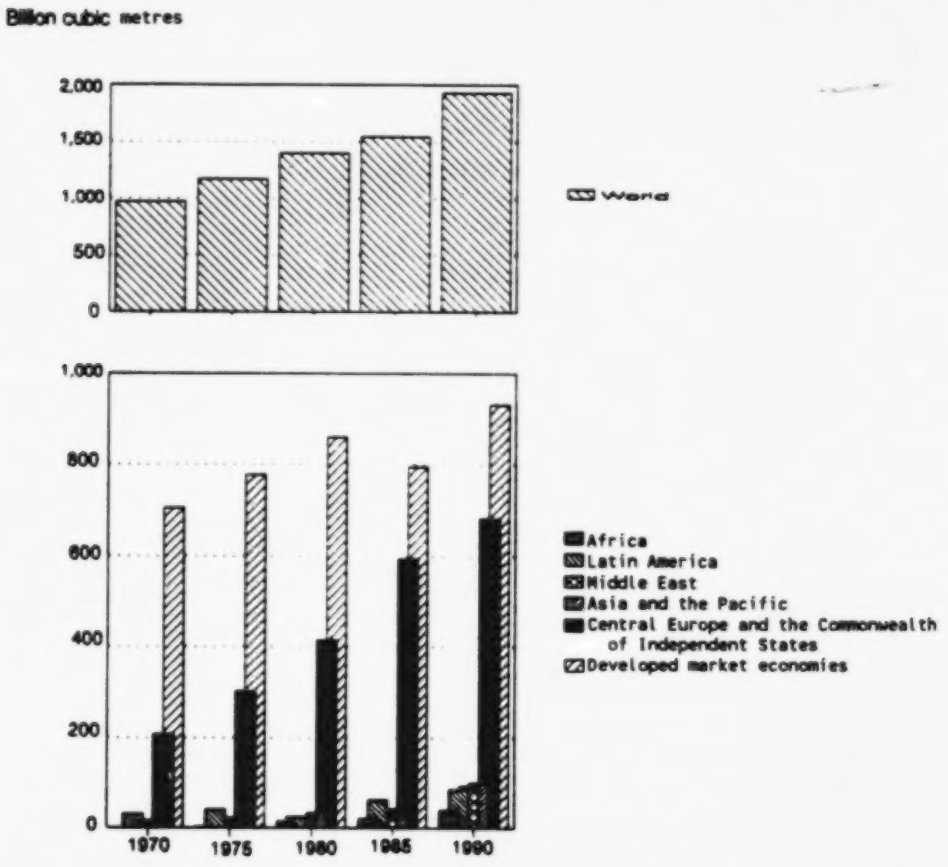


	1970	1975	1980	1985	1990
Central Europe and Commonwealth of Independent States	284.03	408.11	442.21	622.82	744.99
Africa	2.22	7.61	25.02	41.29	71.04
Middle East	14.32	24.66	24.68	57.63	94.31
Asia and the Pacific	9.66	21.18	65.52	78.87	142.21
Western Europe	51.85	109.42	178.69	182.72	184.23
Latin America	21.57	28.57	59.41	74.73	85.22
North America	428.05	418.75	612.07	501.11	551.86

North America · Latin America · Western Europe · Asia and the Pacific · Middle East · Africa · Central Europe and Commonwealth of Independent States

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

Figure 9. World natural gas consumption



Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

71. A new phase of natural gas utilization is materializing as technical progress is making it economically available as a transport fuel with comparatively less environmental impacts. Motor vehicles generate more pollution than any other single human activity and an ever-expanding number of motor vehicles will exacerbate global and local environmental problems. A mitigative option will be the use of an alternative fuel. Compressed natural gas (CNG) and methanol produced from natural gas are technically viable alternatives and are being introduced experimentally in various markets.

C. Coal

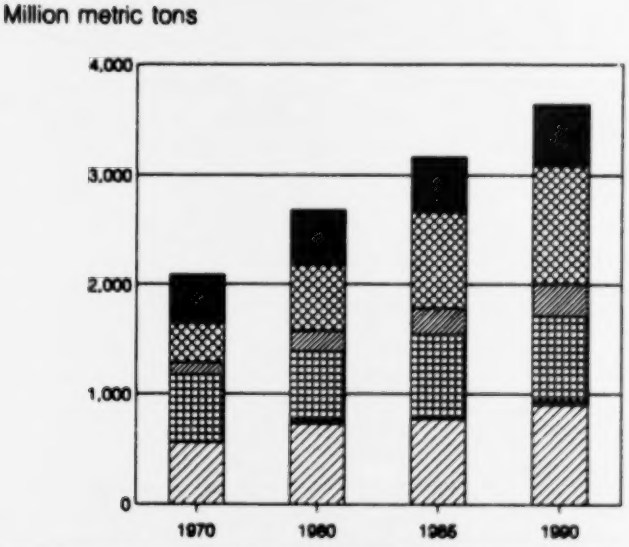
72. Coal is the world's most widely available fossil energy source, with proved recoverable reserves of about 1,075 billion metric tons (bmt) of hard coal (bituminous, including anthracite), 130 bmt of sub-bituminous coal and 391 bmt of lignite, for a total of about 1,596 bmt. 13/ At the present world-wide rate of consumption and with existing technology, and even if consumption should increase substantially, the economically recoverable reserves of coal would last several hundred years.

73. Being the most abundant and widely dispersed fossil fuel and currently the second most important source with which the world meets its energy needs, coal will increase in both absolute and relative importance. However, some 75 per cent of total proved recoverable reserves of hard coal occur in just three countries, China (610 bmt), the United States (113 bmt) and the Commonwealth of Independent States (104 bmt). At present these countries produce about two thirds of the world's hard coal. Also, in the case of lignite, some 60 per cent of the proved recoverable reserves are concentrated in the same three countries. Among the developing countries other than China, the distribution of the proved recoverable reserves is again concentrated in a few of the countries, about 50 per cent in India alone.

74. Some 50 developing countries have identified coal resources and 32 of these countries have some production. However, a very large part of the production comes from a few of the developing countries: China, Democratic People's Republic of Korea, India, Republic of Korea and Turkey. As shown in figure 10, total mine production of hard coal of the developing countries in 1990 was about 1,229.3 million metric tons, a share of about 33.8 per cent of the world total coal production of 3,639.5 million tons.

75. Most of the incremental production is expected from the traditional major producers, China, the United States, the Commonwealth of Independent States, South Africa, Australia, Canada, India and Poland. In view of the anticipated substantial increase in energy demand in the developing countries, other smaller producer countries will also play a role. However, there is considerable uncertainty as to the level of demand and production capacities in the developing countries. Large capital investments in extractive, consuming and transport facilities will be required for this purpose.

Figure 10. World hard coal production



Commonwealth of Independent States	432.72	492.92	494.41	543.01
Africa	5.11	5.11	4.78	6.17
China	364.01	596.01	872.28	1,080.01
Asia and the Pacific	116.41	194.02	243.88	289.29
Europe	611.55	642.58	745.68	784.13
Latin America	8.41	17.68	28.39	37.79
North America	558.43	730.68	770.23	899.11

Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

D. Electric power

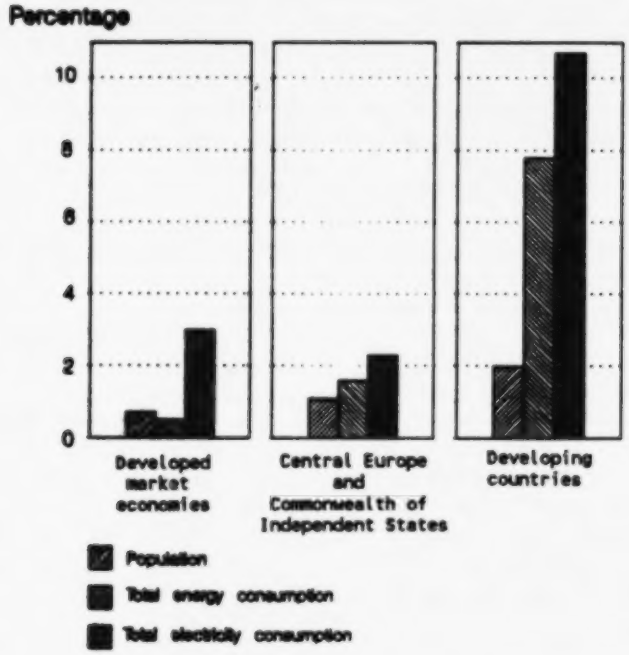
76. World-wide electricity consumption increased to 11,753 terawatt hours (TWH) in 1990, a gain of about 2.5 per cent over 1989, a growth rate lower than the average annual rate of 3.9 per cent for 1980-1990. In the developing countries as a group, despite great differences among them, electricity consumption has grown much faster than in the developed market economies, the Central European countries and the Commonwealth of Independent States. The rate of growth in the developing countries averaged over 10 per cent annually in the period, as shown in figure 11, from a total consumption of about 1,223 TWH in 1980 to about 2,661 TWH in 1990. 14/

77. Despite the high annual growth rate mentioned above, the per capita electricity consumption of the developing countries remains very low compared with the developed market economies, as shown in figure 12.

78. There is a constant and critical need to install new electricity generation capacity in the developing countries, not only because of the continuing high growth in demand, but also because of the imperative to replace output from ageing and inefficient power plants. At the current rate of demand growth the developing countries will require a near doubling of installed capacity, from about 590.2 gigawatts in 1990, by the year 2000. This would require an investment of over US$ 1 trillion (in 1989 dollars). 15/ Furthermore, fuel supply, transportation and other infrastructure investments will require considerable additional outlays annually.

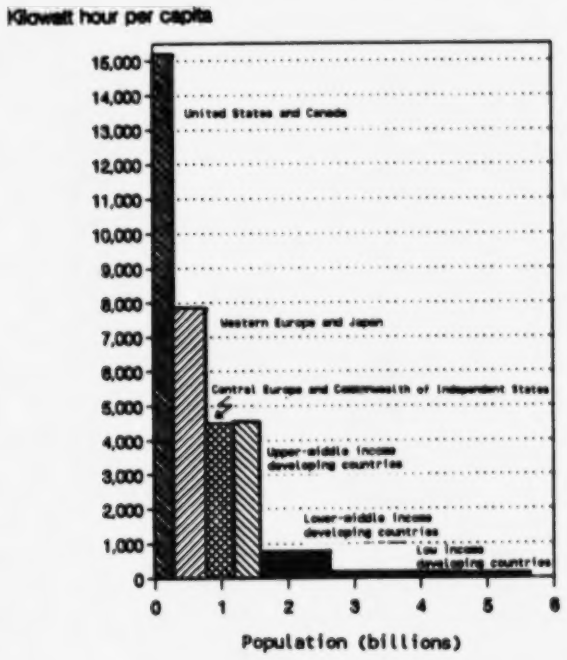
79. In the developing countries fossil fuels continue to be the dominant primary energy source for electricity generation, as shown in figure 13, having steadily increased from 775 TWH in 1980 to 1,632 TWH in 1990, with their share of total electricity generated increasing from 61.3 per cent in 1980 to 65.8 per cent in 1990. Hydropower has made significant gains, especially in a number of the developing countries, having increased by 60 per cent during 1980-1990.

Figure 11. Electricity consumption: average annual growth rate, 1980-1990



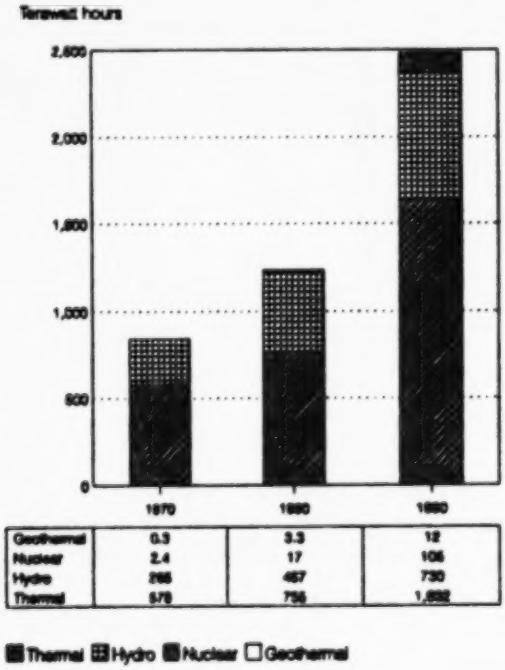
Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues, and United Nations World Population Chart 1990 (revised).

Figure 12. World electricity consumption, 1990



Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues, and the World Development Report, 1991, the World Bank.

Figure 13. Electricity generation by fuel source in the developing countries



Source: United Nations, Department of Economic and Social Development, based on the Energy Statistics Yearbook, various issues.

IV. FINANCIAL REQUIREMENTS AND INVESTMENTS

80. In view of the expected growth in energy production and consumption in the developing world during the 1990s investment requirements will be considerable. For oil production alone, in the member countries of OPEC it has been estimated that US$ 120 billion will be needed by the year 2000. 16/ Another estimate of investment requirements for the oil industry as a whole has been put as high as US$ 1,020 billion, of which US$ 250 billion is for exploration and development, US$ 250 billion for refining, US$ 180 billion for ocean transportation and pipelines, and US$ 340 billion for storage, distribution and marketing. 17/

81. In comparison much more investment will be needed for electric power. As stated previously, about US$ 1 trillion will be needed in the developing countries alone for electric power generating plants. According to a recent study by the World Bank in energy-deficient developing countries and based on plans for electricity capacity expansion from 236,718 MW in 1989 to 442,907 MW in 1999, cumulative capital investments are estimated at US$ 448.6 billion, of which US$ 150 billion would be in foreign exchange. 18/

82. With capital scarcities even in the traditionally capital surplus oil exporting developing countries it is doubtful that the required petroleum investment will be made without new arrangements between host countries and transnational oil corporations. In oil importing developing countries the problem is likely to be even more pronounced, particularly in exploration, since more countries, including the new republics of the former Soviet Union, will be competing for risk capital. Under these circumstances it becomes even more urgent to consider special and expanded assistance programmes by the international community.

V. CONCLUSION

83. The current situation of surplus energy capacities may provide a false sense of energy supply security. A resumption of economic growth, particularly in the developing world, could lead to yet another energy crisis, which can be prevented if precautionary measures are taken by the international community. Such measures have already been initiated in the context of the Ministerial Seminar of Petroleum Producers and Consumers and the European Energy Charter. 19/

84. In this context the Secretary-General wishes to note that the General Assembly in its resolution 45/209 welcomed the outline of a programme of action for the acceleration of energy exploration and development in the developing countries contained in his report (A/45/274-E/1990/73 and Corr.1) and stressed the need for comprehensive national, bilateral and multilateral measures, particularly with regard to financing, investment and technology, as well as training of national technical personnel, to accelerate the exploration and development of energy resources in developing countries, including new and renewable sources of energy.

85. As analysed in the current and previous reports of the Secretary-General on this subject, very few of the above objectives, which have been endorsed repeatedly by the General Assembly during the past 10 years, have been achieved. With a view to mobilizing the international community to increase efforts for comprehensive national, bilateral and multilateral measures to accelerate the exploration and development of energy resources in developing countries, it is recommended that the Assembly consider the preparation of an expanded programme of action in this regard.

Notes

1/ United Nations press release SG/SM/1218, 1 July 1991.

2/ World Economic Survey 1991, (United Nations publication, Sales No. E.91.II.C.1), table V.1, p. 99.

3/ Ibid.

4/ For more information on the contribution of new and renewable sources of energy to the world energy balance, see (a) the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy (A/AC.218/1992/9); (b) the report of the Secretary-General on solar energy: a strategy in support of environment and development (A/AC.218/1992/5); and (c) the report of the Committee on the Development and Utilization of New and Renewable Sources of Energy, Official Records of the General Assembly, Forty-seventh Session, Supplement No. 36 (A/47/36).

5/ The OPEC Persian Gulf States, Saudi Arabia, Kuwait, the Islamic Republic of Iran, Iraq, the United Arab Emirates and Qatar, together hold reserves of about 647.5 billion barrels, against a world total of about 999.1 billion barrels.

6/ All crude oil production, trade and consumption data are from the Energy Statistics Yearbook (United Nations publication), various issues, and Oil and Gas Journal, various last issues of the year containing the "World Prodution Report".

7/ The number of oil fields mentioned is based on the report entitled "Size and distribution of known and undiscovered petroleum resources in the world, with an estimate of future exploration", by Marcello Colitti, OPEC Review, vol. 5, No. 3, 1981.

8/ World Economic Survey 1990 and 1991 (United Nations publication, Sales Nos. E.90.II.C.1 and E.91.II.C.1), chap. V.

9/ Petroleum Review, March 1991, p. 125.

10/ "Mexico President Opens its Oil Industry", The New York Times, 25 September 1991, p. D1.

Notes (continued)

11/ Petroleum Intelligence Weekly, 6 January 1992.

12/ World Oil, August 1991.

13/ World Energy Conference 1989, "Survey of Energy Resources".

14/ All electricity production and consumption data in the section are based on the Energy Statistics Yearbook (United Nations publication), various issues.

15/ See "Report on the Stockholm Initiative on Energy, Environment and Sustainable Development (SEED): Strategies for Implementing Power Sector Efficiency, Stockholm, 13-15 November 1991", key issues papers.

16/ Dr. Subroto, Secretary-General, Organization of Petroleum Exporting Countries, has stated at several forums that some US$ 120 billion will be required in OPEC countries for oil exploration and development during the present decade.

17/ Petroleum Intelligence Weekly, 13 January 1992, p. 7. See "Oil industry investment needs in the 1990s: Will US$ 1 trillion be enough? Will it be available?", by Walter L. Newton.

18/ "Capital Expenditures for Electric Power in Developing Countries in the 1990s", World Bank, Energy and Industry Working Paper, Energy Series Paper 21, February 1990.

19/ See the Declaration on International Economic Cooperation, in particular the Revitalization of Economic Growth and Development of the Developing Countries, contained in the annex to General Assembly resolution S-18/3 of 1 May 1990; the International Development Strategy for the Fourth United Nations Development Decade annexed to resolution 45/199 of 21 December 1990; and resolutions 40/208 of 17 December 1985, 43/193 of 20 December 1988 and 45/209 of 21 December 1990 on the development of the energy resources of developing countries.

UNITED
NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/1992/52
14 May 1992

ORIGINAL: ENGLISH

Substantive session of 1992
29 June-31 July 1992
Item 11 of the provisional agenda*

REGIONAL COOPERATION

Summary of the survey of economic and social developments in the region of the Economic and Social Commission for Western Asia, 1991

SUMMARY

The Persian Gulf conflict and its aftermath have dealt a severe blow to economic and social conditions in Western Asia. The region of the Economic and Social Commission for Western Asia (ESCWA) as a whole experienced a negative growth rate of 3.8 per cent in 1990 and its gross domestic product (GDP) is estimated to have contracted further by 4.9 per cent, in 1991 (see table). The GDP of the Gulf Cooperation Council (GCC) countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) is estimated to have declined by 0.6 per cent in 1991. Excluding Kuwait, the rate of GDP growth rose to more than 5 per cent in 1991, owing mainly to the robust performance of the Saudi Arabian economy. The GDP of the more diversified countries of the region (Egypt, Iraq, Jordan, Lebanon and the Syrian Arab Republic) is estimated to have declined by 13 per cent in 1990 and by 12.4 per cent in 1991. The considerable contraction in GDP of this group may be attributed mainly to the sharp decline in output of Iraq and the disruption of economic, trade and labour flows between the GCC countries and the group. The GDP of the least developed country of the region, namely Yemen, is estimated to have declined by 3 per cent in 1990 and 4.8 per cent in 1991.

* E/1992/100.

Among the more adverse effects of the Persian Gulf conflict on ESCWA's labour-sending countries was the sudden, massive influx of returnees. In late 1991, estimates indicated that the combined number of returnees totalled 1,947,000. The number of returnees was large in absolute and in relative terms, particularly in Yemen (732,000) and Jordan (300,000), causing the resident population to increase abruptly by 7 per cent in the former and 10 per cent in the latter.

Inflationary pressures increased in the more diversified economies of Western Asia owing mainly to the negative effects of the Persian Gulf conflict and/or the marked depreciation in the value of the national currency. Indications are that Iraq suffered from hyperinflation in 1990 and 1991. It is estimated that in 1991 the inflation rate registered 50 per cent in Lebanon and exceeded 20 per cent in Egypt and Yemen. On the other hand, inflationary pressures in the GCC countries (excluding Kuwait) have generally remained fairly modest over the last two years, reflecting in part highly subsidized basic goods and services and generally conservative monetary policies as well as strong and stable exchange rates.

The total identified external debt of the ESCWA region reached $153 billion in 1990, representing 9 per cent of the total external debt of all developing countries in that year. In a number of countries the debt situation has been serious and in some cases - Egypt, Jordan, Yemen and the Syrian Arab Republic - critical. In those countries, debt service and debt repayments have been rising with adverse repercussions perhaps as severe as those in other highly indebted countries. The debt service burden continues to deprive Egypt and the Syrian Arab Republic of badly needed foreign exchange, despite the forgiveness of a significant portion of their external debts in 1991.

The oil sector continued to play a dominant role, directly and indirectly, in most economies of the region. For the ESCWA region as a whole, oil production in 1991 was 13.82 million barrels a day (m/b/d), compared with 14.29 m/b/d in 1990 and 14.16 m/b/d in 1989. The region's oil revenues in 1991 were estimated at $75.6 billion, compared with $83.7 billion in 1990 and $69.7 billion in 1989. In 1990 most ESCWA oil-producing countries (excluding Iraq and Kuwait, where output was drastically reduced) registered notable increases in production and, helped by higher prices, in revenues. Owing mainly to the drop in oil prices in 1991, oil revenues of all ESCWA oil producers declined, with the exception of Saudi Arabia and the Syrian Arab Republic.

The 1990/91 and 1991/92 budgets of most of the GCC countries reflect the impact of increased expenditures to finance the consequences of the Persian Gulf conflict, with large deficits appearing in the case of Kuwait and Saudi Arabia. At the same time, the international reserves of the ESCWA region dropped from $35.6 billion in 1989 to $31.4 billion in 1990, with indications of a further drop in 1991.

The ESCWA region's current account balance registered a surplus in 1989 (excluding Iraq and Lebanon) after seven years of successive deficits. The surplus increased further (excluding Iraq, Kuwait and Lebanon) in 1990, rising from $2.4 billion to $4.4 billion. The improvement came as a result of the sharp increase in the trade surplus, from about $2.1 billion in 1988 to $20.9 billion in 1989 and, further, to $32.3 billion in 1990. This in turn reflected the improvement in the GCC countries. In contrast, the deficit on the services account rose from $6.3 billion in 1989 to $14 billion in 1990, while the deficit of unrequited transfers rose from $5.4 billion to $8.6 billion. The improvement in the trade balance in 1990 reflected essentially higher oil exports after the surge in oil prices in the beginning of August, and also the continuous compression of imports. Judging by preliminary data available for some GCC countries, the decline in oil prices and the continuation of economic sanctions against Iraq, it appears that, with the exception of Saudi Arabia, exports of the GCC countries and Iraq declined in dollar terms in 1991, especially those of Iraq.

The financial constraints that were accentuated by the Persian Gulf conflict will negatively affect the level of investment expenditures in the ESCWA region as a whole, but particularly in the resource-deficit countries. Reconstruction, and the rebuilding of Kuwait's oil industry in particular, is expected to continue to progress rapidly. The return of business confidence to the GCC countries is expected to enhance economic activities in those countries during 1992. Following present trends, Iraq is expected to continue to suffer in 1992 from the devastation of its economy during the Persian Gulf conflict, as well as from the imposition of the United Nations trade embargo. While the removal of sanctions should help stop socio-economic conditions from deteriorating further, full economic recovery will take considerable time, given the enormous external financial obligations and the large domestic investment and reconstruction requirements.

The ESCWA countries that have to cope with large numbers of returnees will continue to suffer from the burden of their reintegration and from the decline in workers' remittances. Moreover, financial aid and trade relations between the GCC countries and countries regarded as having been sympathetic to Iraq during the Persian Gulf conflict are expected to remain minimal in 1992 and possibly for several years thereafter.

The Persian Gulf conflict provided a fresh reminder of how much development and progress in the region had been dependent on peace and political stability. Development prospects have been severely set back by the resulting massive destruction of economic and social infrastructure in Iraq and Kuwait, by the need to divert huge resources to finance the war and strengthen defence capabilities in several countries and by the disruption of intraregional trade, capital and labour flows. Less apparent, but no less important, has been the adverse impact on regional cooperation, which it will take time and effort to redress.

Recent developments have further highlighted the vulnerability of member countries to exogenous factors, whether originating inside or outside the

region. Both the surplus and deficit member countries are exposed, though the nature of the exposure and its implications may be different. While the exposure and vulnerability of the surplus countries arise essentially from the heavy dependence on oil as their main source of income and foreign exchange on the one hand and the heavy reliance on expatriate labour and expertise for the proper functioning of their economies on the other, the exposure and vulnerability of the deficit countries, including the least developed member of the group (Yemen), derive from excessive dependence on the outside world, and mainly the surplus countries of the region, for the bulk of their foreign exchange earnings be those through trade, aid or workers' remittances. This points to the basic need to diversify the region's economies and sources of foreign exchange and to the overriding importance of intraregional economic relations and interdependence (and at the same time to the instability of those relations).

The Persian Gulf conflict ended up adding to the serious economic and social problems associated with structural unemployment and unproductive employment in the region. Traditionally, the Persian Gulf region and Iraq had provided an outlet that absorbed a significant segment of the labour force in the non-oil economies, to the advantage of both labour-receiving and labour-sending countries. Reduced demand for labour in the Persian Gulf States had already been in evidence prior to the Persian Gulf crisis, mainly as a result of unfavourable trends in oil prices and completion of major infrastructural projects. However, as indicated above, the crisis itself forced a massive return of workers to their country or area of origin (Egypt, Jordan, Lebanon, the Syrian Arab Republic, Yemen and the occupied Palestinian territory). This raised unemployment to unprecedented levels and imposed on the countries concerned burdens that were far beyond their means to cope with. The demand on the limited resources of the ESCWA labour-sending countries surged, particularly that for health services, education facilities, public transportation and housing. The sudden, massive number of returnees continue to exert enormous strains on social services and physical infrastructure in those countries. The absorption cost of the returnees to Jordan, for example, was estimated at $3.14 billion over a three-year period. The absorption of returnees has become a major issue that these countries will face for several years to come. Their ability to cope with that issue will depend largely on adequate regional and international financial and technical assistance, on future policies regarding employment of expatriates in the Persian Gulf States and on the finding of alternative labour markets and employment opportunities.

Balance-of-payments and budgetary imbalances remain a major feature of the economies of many ESCWA countries. Recessionary conditions in the Persian Gulf subregion throughout most of the 1980s have had significant negative spillovers for the other member countries essentially in the form of reduced aid, but also in terms of lower workers' remittances and trade exchange. As a result several member countries including Egypt, Jordan, the Syrian Arab Republic and Yemen have had to contract additional external debt to the extent that debt repayment and servicing became a major constraint on their ability to develop. Those countries found themselves unable to meet their debt

obligations without jeopardizing investment and consumption levels, not to mention accommodation of rapidly increasing populations. However, a number of them have benefited from debt relief and/or additional aid disbursements in the wake of the Persian Gulf conflict by creditors from inside and outside the region and from the adoption and implementation of adjustment policies. However, further measures at the regional and international levels are needed to relieve these countries of their heavy debt burden. This is especially relevant in the case of the countries such as Jordan and Yemen that did not benefit from debt forgiveness and additional aid flows and whose economies at the same time suffered greatly as a result of the Persian Gulf conflict.

Growing income disparities within and between countries of the region could have serious adverse implications for long-term growth and development of all member countries by fermenting social and political unrest and instability. Reduced aid flows and the repatriation of hundreds of thousands of workers as a result of the Persian Gulf conflict have accentuated the problem. Current proposals to set up a regional development and reconstruction bank are a step in the right direction, though their success would ultimately depend on benefits being made accessible to all countries in need in the region.

Until the discovery of oil (though in very modest quantities) in 1987, the least developed member country, Yemen, relied almost exclusively on workers' remittances and grants originating mainly in neighbouring Persian Gulf countries to finance its development requirements. The virtual cessation of these flows in the wake of the Persian Gulf conflict dampened the country's development prospects that the discovery of oil had prompted. Moreover, these adverse developments occurred shortly after the unification of the two regions of the country in May 1990, thus further complicating the transition process. It would appear, therefore, that any discussion regarding the least developed status, and possible graduation from that status, of Yemen should not be taken lightly.

While a number of member countries (such as Egypt and Jordan) have for some time been implementing macroeconomic structural adjustment policies in close consultation with the International Monetary Fund and the World Bank in order to cope with various imbalances and distortions in their economies, the consequences of the Persian Gulf conflict have made such policies more pressing. The issues involved, however, go beyond coping with imbalances and distortions and the aftermath of the Persian Gulf conflict. The region cannot ignore the trends under way in various parts of the world to transform managed economies in favour of market-oriented economic systems, whose salient feature is privatization of ownership of the means of production. While privatization has been gaining momentum in the region in the last few years, the role of the public sector could be expected to remain strong if only because a substantial portion of the wealth and income generated remains in the hands of Governments. The path towards privatization, therefore, may differ in scope and nature from that under way in other parts of the world.

The formation of a single and enlarged European market poses another challenge to the countries of the region in the coming years. Those countries will not be able to respond effectively to this challenge unless they themselves come closer to each other economically. While past experience to promote regional cooperation has not been encouraging in general, fresh efforts that transcend intercountry differences will be needed in order to safeguard the region's overall interests.

The region's prospects in the years ahead will also be strongly affected by two additional factors. The first is the speed with which reconstruction occurs in war-torn countries: Lebanon, Iraq and Kuwait. The second development relates to the outcome of Arab-Israeli negotiations, which could modify both the political and the economic map of the region.

Macroeconomic indicators for the region of the Economic and Social Commission for Western Asia, 1989-1991

Indicator	1989	1990	1991
GDP (billions of dollars) a/	292.0	280.9	267.0 b/
GDP growth rate (percentage)	5.8	(3.8)	(4.9)
Per capita GDP (dollars)	2 405	2 233	2 063
GDP (billions of dollars) c/	211.7	224.6	235.3 b/
GDP growth rate (percentage) c/	4.1	6.1	4.8
External debt (billions of dollars)	148.6	153.0	..
Debt service payment (billions of dollars)	14.2	14.5	..
External debt/GDP (percentage)	50.89	54.49	..
Exports (billions of dollars)	88.59	102.13	..
Imports (billions of dollars)	67.71	69.84	..
Balance of trade (billions of dollars)	20.88 d/	32.29 c/	..
Current account balance (billions of dollars)	2.4 e/	4.40 f/	..
International reserves (billions of dollars)	35.63 g/	31.36 h/	..
International reserves/import ratio (months)	6.3	5.8	..
Oil production (millions of barrels a day)	14.16	14.29	13.82
Oil revenues (billions of dollars)	69.7	83.7	75.6
Proven oil reserves (billions of barrels)	566.69	569.26	568.20
Proven oil reserves/total world oil reserves (percentage)	56.8	57.0	57.3
Proven oil reserves/oil production (years)	109.7	109.1	112.5
Natural gas reserves/total world gas reserves (percentage)	19	17	16.7
Agricultural imports (billions of dollars)	17.2	17.3	..
Agricultural exports (billions of dollars)	2.5	2.6	..
Agricultural balance of trade (billions of dollars)	(14.7)	(14.7)	..
Manufacturing value added (billions of dollars)	28.7	23.0	..
Number of returnees by year end (millions)	..	..	1.95

Source: Economic and Social Commission for Western Asia (ESCWA), based on national and international sources.

Note: Parentheses ( ) indicate a deficit or negative amount. Two dots (..) indicate incomplete data.

(Footnotes on following page)

(Footnotes to table)

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a/ At constant 1980 prices.

b/ Preliminary estimates.

c/ Excluding Iraq and Kuwait.

d/ Excluding Iraq.

e/ Excluding Iraq and Lebanon.

f/ Excluding Iraq, Kuwait and Lebanon.

g/ Excluding Iraq and the Syrian Arab Republic.

h/ Excluding Iraq, Kuwait and the Syrian Arab Republic.

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INTRODUCTION

1. Weakening of the world economy in 1990 and 1991; deceleration in world trade growth; German unification and economic integration in Europe; transformation in the former Union of Soviet Socialist Republics and Eastern Europe; and the stalled five-and-a-half-year-old Uruguay Round of multilateral trade negotiations have affected economic development and growth in Western Asia, in view of the high degree of openness of the economies of the region. However, the factor with the most profound and far-reaching effects on the countries of the region of the Economic and Social Commission for Western Asia (ESCWA) has been the Persian Gulf conflict. The Persian Gulf conflict inflicted considerable short- and long-term damage on the fabric of economic, social and environmental conditions in Western Asia and precipitated a severe set-back to regional economic cooperation and integration efforts.

2. The Persian Gulf conflict dealt a severe blow to the economies of the ESCWA region, through direct destruction of and damage to infrastructure and disruption of trade links, labour exchange, financial aid and capital flows. Macroeconomic conditions in most labour-sending countries deteriorated considerably as a consequence.

3. The Persian Gulf conflict has severely damaged the infrastructure and industrial base of Kuwait and Iraq and inflicted great harm on the ecological balance in the Persian Gulf subregion. The Iraqi invasion of Kuwait on 2 August 1990 and subsequent military operations caused the destruction of a significant part of the country's physical infrastructure and seriously damaged power and water desalination plants. Basic water and sewerage systems and hospitals were also damaged. Most important, however, was the severe damage done to the country's oil industry. Over 700 oil wells were either set ablaze or gravely damaged. Refineries, pipelines and storage systems were destroyed. Kuwait's installed oil production capacity, which had been estimated at 2.9 million barrels a day (m/b/d) before the eruption of the Persian Gulf conflict, was down to naught by the time military operations had ended in late February 1991. In addition to the wasteful burning of around 4 m/b/d of crude oil, fires resulted in the pollution of the air with huge clouds of dark, oily smoke, with spilled oil polluting land and sea. While the environmental havoc wrought, and its adverse long-term ecological and health-related repercussions have still to be assessed, discomfort from that havoc was immediately felt in the whole Persian Gulf area.

4. With access to a large foreign assets portfolio, Kuwait has managed to overcome the critical difficulties it faced following the cessation of military operations in late February 1991, as evidenced by the speed with which it extinguished the oil fires and by the rapid increase in oil production - to 450,000 b/d by the end of 1991 and 700,000 b/d by the first quarter of 1992.

5. For Iraq and its people the Persian Gulf conflict and its aftermath were devastating. In addition to tens of thousands killed or wounded, the Persian Gulf conflict greatly damaged Iraq's economic infrastructure. More than 30

major bridges across the Tigris and Euphrates rivers were reported to have been totally destroyed and the railway system ceased to operate as a result of war-inflicted damage. Power plants, oil installations, telephone systems, military industries, many roads and private sector establishments were also damaged.

6. Official Iraqi estimates had put the cost of reconstruction of establishments of particular importance to the economy and social life at 8.0 billion Iraqi dinars ($25.6 billion at the official exchange rate), of which 80 per cent ($20.5 billion) was in foreign currency. 1/ Those estimates, however, do not include various forms of social and humanitarian losses and damage both to military installations and industries and to private sector establishments. Though some reconstruction and repair have already been carried out, the remaining task - given the United Nations sanctions and the poor state of the economy - is formidable.

I. OVERALL ECONOMIC PERFORMANCE

7. The Persian Gulf conflict and its aftermath continue to adversely affect economic and social performance and prospects in the region as a whole, owing mainly to the close trade and economic links among countries of the region that have developed and deepened as a result of rapid economic development in the major oil-exporting countries of the region since the mid-1970s.

8. The region as a whole experienced a negative growth rate of 3.8 per cent in 1990 and its gross domestic product (GDP) is estimated to have contracted by a further 4.9 per cent in 1991. This can be attributed mainly to the loss of output in Iraq, Kuwait and, to a lesser extent, Jordan and Yemen. However, economic performance, as well as the impact of the Persian Gulf conflict on that performance, varied from one group of countries to another.

9. The Gulf Cooperation Council (GCC) countries enjoyed overall favourable economic conditions in 1989, reflecting to a great extent improvements in the mining sector (mainly oil and natural gas). The combined GDP of this group of countries, which grew by 6.6 per cent in 1989, slowed down in 1990 to about 2.8 per cent, despite the rise in oil prices and revenues during the second half of 1990. This can be attributed mainly to the considerable decline in the output of Kuwait. In 1991, the GDP of the GCC countries is estimated to have declined by 0.6 per cent. However, excluding Kuwait, the rate of GDP growth rose to more than 5 per cent in 1991, owing mainly to the robust performance of the Saudi Arabian economy. The ending of the Persian Gulf conflict has resulted in improved business confidence and an increase in both public and private sector investment expenditures in several GCC countries, particularly Saudi Arabia.

10. The economic impact of the Persian Gulf conflict on the more diversified countries of the region (Egypt, Iraq, Jordan, Lebanon and the Syrian Arab Republic) was direct and severe. The economies of most countries in this group, as well as the economy of the occupied Palestinian territory, were

closely linked to those of the GCC countries and Iraq through various channels: financial assistance, employment opportunities, remittances and trade. The flow of capital and workers' remittances from the GCC countries had for many years helped finance large trade and budget deficits as well as investment in these countries.

11. The combined GDP of these countries, which grew by 4.5 per cent in 1989, is estimated to have declined by 13 per cent in 1990. Preliminary data for 1991 suggest that GDP declined by a further 12.4 per cent. This poor economic performance in 1990 and 1991 reflected mainly the great loss of output in Iraq and to a much lesser extent in Jordan.

12. The economy of the least developed member country in the region, namely Yemen, experienced negative growth rates in both 1990 and 1991. The Persian Gulf conflict aggravated the inherent structural weaknesses of the economy. Overall economic performance, as measured by GDP, declined by 3 per cent in 1990 and is estimated to have declined further, by 4.8 per cent, in 1991.

13. Among the more adverse effects of the Persian Gulf conflict on ESCWA's labour-sending countries was the massive and sudden influx of returnees. In late 1991, estimates indicated that the combined number of returnees to the ESCWA labour-sending countries totalled 1,947,000, divided as follows: Egypt (700,000), Jordan (300,000), Lebanon (60,000), the occupied Palestinian territory (45,000), Yemen (732,000) and the Syrian Arab Republic (110,000). This figure represented 75 per cent of the total number of returnees attributed to the Persian Gulf conflict. The number of returnees was large in absolute and relative terms particularly in Yemen, the region's least developed member country, and Jordan. The returnees abruptly increased the resident population of the former by 7 per cent and that of the latter by 10 per cent. In particular, the demand for health services, education facilities, public transport and housing increased considerably. Inflationary pressures increased notably in the housing markets in Jordan and Yemen. The sudden and massive number of returnees continue to exert enormous strains on social services and physical infrastructure in ESCWA's labour-sending countries. The absorption cost of the returnees in Jordan, for example, was estimated at $3.14 billion over a three-year period.

14. The Persian Gulf conflict exacerbated the unemployment problem in ESCWA labour-sending countries. Unemployment rates jumped to economically and socially critical levels and are estimated to have exceeded 30 per cent in Jordan, Lebanon and Yemen. This, in turn, has had negative economic and social ramifications in terms of lost potential output and rising rates of crime and drug use, for example. In addition, it is feared that the excessively high unemployment rates in ESCWA labour-sending countries, if they remain unchecked, may also hinder female participation in the labour force.

15. Even prior to the eruption of the Persian Gulf conflict, unemployment rates in the ESCWA labour-sending countries were already excessively high, owing to a number of factors: (a) high population growth rates; (b) recessionary conditions in the Gulf Cooperation Council (GCC) countries

during the second half of the 1980s; (c) implementation of adjustment policies by some member countries (Egypt and Jordan) aimed at reducing economic imbalances; (d) earlier return of large numbers of Egyptian workers from Iraq and of Lebanese nationals from some African countries; (e) influx of foreign labour (occupied Palestinian territory); and (f) disruption of economic activities owing to civil strife (Lebanon) and the uprising (intifadah) (occupied Palestinian territory).

16. Inflationary pressures increased in the more diversified economies of Western Asia mainly owing to the negative effects of the Persian Gulf conflict and/or marked depreciation in the value of national currencies. Though no official general price index is available, there are strong indications that Iraq suffered from hyperinflation in 1990 and 1991. Lebanon's estimated inflation rate of 50 per cent in 1991 seems to have already been exceeded in the first quarter of 1992. Inflation rates in Egypt and Yemen are estimated to have exceeded 20 per cent in 1991. However, the high inflation rate in Egypt in 1991 is considered to have been caused partly by the reduction in government subsidies for basic goods and services and partly by the introduction of a 10 per cent sales tax.

17. Inflationary pressures in the GCC countries (excluding Kuwait) have generally remained fairly modest over the last two years (at 3 per cent or below) with the exception of the United Arab Emirates, where the inflation rate is estimated to have been 6.5 per cent in 1990 and 4.3 per cent in 1991. The low level of inflation in the GCC countries, compared with that in other ESCWA countries, reflects in part highly subsidized basic goods and services as well as stable and strong exchange rates.

II. SECTORAL DEVELOPMENTS

18. Oil production was rising in several ESCWA countries during the first seven months of 1990. Kuwait and the United Arab Emirates were producing considerably more than their assigned Organization of the Petroleum Exporting Countries (OPEC) quota, while Saudi Arabia restrained the increase in its output out of concern for weakening oil prices. Other ESCWA countries were producing oil at near full-capacity levels in an effort to maximize foreign exchange earnings.

19. The Persian Gulf conflict dealt a severe blow to oil production and export capacity in both Kuwait and Iraq. In July 1990, Iraq and Kuwait produced 3.45 m/b/d and 1.85 m/b/d, respectively, or 22.5 per cent of total OPEC output. The removal of their combined oil exports of around 4.5 m/b/d created a sudden world-supply shortage and led to sharply higher prices. The average price of the basket of seven OPEC crudes increased from $15.68 a barrel in July to $24.89 a barrel in August and continued to rise through October 1990 when it registered $34.58 a barrel, the highest monthly average in over nine years. In response, oil production in many countries, including ESCWA members, increased to near full-capacity levels by the end of 1990.

20. For 1990 as a whole, oil production in the ESCWA countries as a group was at about the same level as in the previous year (14.29 m/b/d compared with 14.16 m/b/d), albeit with wide discrepancies in output levels among individual countries. Thus, while oil production in Iraq (2.0 m/b/d) and Kuwait (1.8 m/b/d) fell by 27.7 per cent and 36.1 per cent respectively, it increased by 25.2 per cent (to 6.47 m/b/d) in Saudi Arabia, by 9.5 per cent (to 2.05 m/b/d) in the United Arab Emirates and by 3.3 per cent (to 0.66 m/b/d) in Oman.

21. During 1991 oil production in Kuwait and Iraq tumbled to 0.19 m/b/d and 0.3 m/b/d respectively, while it further increased in Saudi Arabia (to 8.23 m/b/d), in the United Arab Emirates (to 2.37 m/b/d) and in Oman (to 0.7 m/b/d). During 1990 and 1991 notable increases in oil production were also registered in the Syrian Arab Republic (34.5 per cent), Egypt (5.3 per cent) and Yemen (5.3 per cent). Overall oil production in the ESCWA countries in 1991 totalled 13.82 m/b/d, a figure 3.28 per cent below its 1990 level.

22. The Persian Gulf conflict and its aftermath greatly affected the level of oil revenues of ESCWA countries in 1990 and 1991. Obviously, Kuwait and Iraq witnessed a drastic reduction in oil revenues, given the sharp decrease in their oil production and exports. Kuwait's oil revenues are estimated to have fallen by around one third in 1990, and in 1991 the country's estimated $978 million oil export revenues represented around 10 per cent of their 1989 level. Similarly, Iraq's oil revenues fell by close to two fifths in 1990 and were practically negligible in 1991, owing to the maintenance of United Nations economic sanctions.

23. The countries that witnessed the largest increases in oil export revenues in 1990 were those that were able to raise considerably their oil production and hence maximize their benefits from the surge in oil prices during the last five months of the year. Saudi Arabia's oil revenues are estimated to have increased from $23.3 billion in 1989 to $40.4 billion in 1990, or by 73 per cent. Similarly, the United Arab Emirates' oil revenues are estimated to have increased from $10.3 billion in 1989 to $16.0 billion in 1990, or by 54.6 per cent. Qatar's oil export revenues increased by 31.4 per cent in 1990, to $2.8 billion. Benefiting from the considerable increase in average oil prices in 1990, and higher output levels, oil revenues surged also in Egypt, Oman and the Syrian Arab Republic.

24. In 1991, however, only Saudi Arabia and the Syrian Arab Republic increased production and exports sufficiently to compensate for the 16.2 per cent decline in average oil prices. Thus, in 1991 oil export revenues are estimated to have fallen in all ESCWA countries, with the exception of the above-mentioned two countries. Oil export revenues of Saudi Arabia, estimated at $47.5 billion in 1991, were more than twice the amount recorded in 1989. For the ESCWA oil producers as a group, oil revenues totalled $75.6 billion in 1991, that is, they were 9.7 per cent below their 1990 level.

25. Proven oil reserves in the ESCWA region at the beginning of 1992 were estimated at 568.2 billion barrels, accounting for 57.3 per cent of the world's total, compared to a 47.8 per cent share at the beginning of the 1980s. Oil reserves of the four major oil-producing ESCWA countries, namely Saudi Arabia (257.8 billion barrels), Iraq (100 billion barrels), the United Arab Emirates (98.1 billion barrels) and Kuwait (94 billion barrels), alone account for 550 billion barrels, or 96.8 per cent of the region's total and 55.5 per cent of total world proven oil reserves.

26. The present level of oil reserves in the region is sufficient to last for 113 years at 1991 production levels, assuming that Iraq and Kuwait maintain production at their respective 1989 levels, and not at the exceptionally low levels of 1991. There are, however, great intercountry disparities in the proven oil reserve/production ratios. Thus, while the United Arab Emirates and Saudi Arabia can maintain their 1991 oil production levels for another 113.5 years and 85.8 years respectively, oil reserves in the Syrian Arab Republic and Bahrain may be depleted in 9.4 years and 5.5 years respectively, barring new discoveries. Iraq and Kuwait, assuming production levels of a more normal year such as 1989, can maintain production for another 98 and 140 years respectively.

27. While much less significant than that of oil, the use of natural gas, in the ESCWA region is growing in importance at the domestic level and holds promise at the international level. The region holds 16.7 per cent of the world's natural gas reserves, but interregional and intraregional gas trade remains minimal. Intraregional trade in natural gas occurred on a limited basis prior to the Persian Gulf conflict and the potential for increasing trade exists within the region. The Syrian Arab Republic, Iraq, the United Arab Emirates and Qatar have the ability to provide nearby countries with gas supplies requiring relatively modest levels of investment. Qatar possesses one of the world's largest natural gas fields and during 1991 completed the first phase of its three-phase gas development project.

28. Most of the gas produced in the ESCWA region is consumed domestically. Recent gas discoveries in Egypt, Jordan and the Syrian Arab Republic have been exploited quickly for domestic use, and similar plans are also under consideration in Yemen. These countries are following a strategy of replacing domestic oil consumption with gas when possible to allow for increases in oil exports or (in the case of Jordan) decreases in oil imports.

29. Notwithstanding the overwhelming importance of oil, the agricultural sector remains vital to the economic and social development of the region because of its contribution to employment, exports and industrial development. During the last decade, the high priority accorded to this sector by member countries has led to increased production and greater self-sufficiency in many food commodities. However, the gap between production and consumption of agricultural commodities in general continued to widen.

30. The agricultural sector has been negatively affected not only by the Persian Gulf conflict, but also by adverse weather conditions, water shortages, overuse of its fragile natural resource base and desertification. These factors led to a sharp decrease in the volume of agricultural production in the ESCWA region in 1991

31. Iraq's agricultural sector was dramatically affected by the Persian Gulf conflict, which led to a major destruction of irrigation and drainage facilities. Jordan and Yemen were also severely affected by abnormally low levels of rainfall, which reduced production in the rain-fed areas. The ESCWA region's agricultural sector is still constrained by lack of adequate economic incentives for producers, deficient pricing policies, weak and inadequate research facilities, poor storage facilities and marketing problems.

32. In 1990, the value of agricultural imports into the ESCWA region totalled $17.3 billion, while agricultural exports amounted to $2.6 billion, thus resulting in a deficit in the agricultural balance of trade of $14.7 billion. Moreover, while agricultural imports represented about a quarter of all imports, agricultural exports represented a mere 2.5 per cent of total exports. This was partly due to rapidly rising domestic consumption of agricultural commodities that simultaneously increased imports and reduced exportables.

33. Most countries in the ESCWA region registered lower agricultural production in 1991 in comparison with 1990. Agricultural production is estimated to have declined in 1991 by 2.1 per cent in the Syrian Arab Republic, 3 per cent in Egypt, 3 per cent in Saudi Arabia, and 32 per cent in Iraq.

34. Cereal production in the region registered a decrease of 3.83 per cent in 1991 compared with 1990, mainly owing to lower production in Iraq (64 per cent), Jordan (24.4 per cent) and Lebanon (7.8 per cent). Cereal production increased in 1991 in Saudi Arabia (10.9 per cent), and Egypt (5.2 per cent). The self-sufficiency ratio in cereals in the ESCWA region as a whole increased from 45.4 per cent in 1989 to 51.3 per cent in 1990. The region's output of wheat decreased by 0.14 per cent in 1991, with Iraq registering a decline of 56 per cent, while Saudi Arabia, Egypt and the Syrian Arab Republic recorded higher output. Self-sufficiency in wheat for the region increased from 39.3 per cent in 1989 to 46.8 per cent in 1990.

35. In an effort to reduce imports, Governments in the region have been encouraging and supporting the development of livestock production. Index numbers indicate an increase in livestock production in 1991 in most countries of the region with the exception of Iraq, where production is estimated to have fallen by 23.6 per cent.

36. In 1991, poultry meat production in the region decreased by about 3 per cent. While production fell sharply in Iraq and Kuwait, it remained around its 1990 level in Bahrain, Oman and Qatar and increased in the rest of the countries, the increase varying from about 3 per cent in Egypt to about 10 per cent in Jordan.

37. Egg production decreased in 1991 by 1.46 per cent in the region as a whole, declining sharply in Iraq and Kuwait, remaining at about its 1990 level in Bahrain, Jordan and Qatar, and increasing in the other countries.

38. The region's production of milk declined in 1991 by 1.95 per cent. The decrease in milk production varied from 4.8 per cent in Lebanon to 22.1 per cent in Iraq and 97.6 per cent in Kuwait. However, increases were recorded in Oman (4.1 per cent), Qatar (5 per cent) and the United Arab Emirates (5.9 per cent).

39. The Persian Gulf conflict has greatly affected the course of industrial development in the ESCWA region. Its financial and economic repercussions have intensified the difficulties that were already confronting the manufacturing sector in several ESCWA countries. The impact of the crisis, however, has varied from one country to another. The Persian Gulf conflict has devastated the manufacturing sector of both Iraq and Kuwait, and its negative impact on the growth and development of the manufacturing sector of neighbouring ESCWA countries was also very serious. While recovery in some countries of the region is under way, the long-term effects of the Persian Gulf conflict on the growth and structure of the manufacturing sector will take time to erase.

40. Preliminary estimates for 1990 indicate that there was a very sharp decline in manufacturing activity, with output at current prices declining by 18.9 per cent, compared with a growth rate of 11.2 per cent in 1989 and 6.7 per cent in 1988. The value added in the manufacturing sector of the region as a whole was estimated at around $23 billion in 1990, compared with $28.7 billion in 1989 and $25.8 billion in 1988. The deterioration in overall performance was primarily due to the decline in manufacturing value added in Iraq and Kuwait during 1990. The exclusion of these two countries would have resulted in an overall growth rate of only 1.4 per cent in 1990.

41. Saudi Arabia ranked first in terms of its relative contribution to regional manufacturing value added, generating around 30 per cent of the total. Egypt and the Syrian Arab Republic came next, contributing 18 per cent and 12 per cent respectively. Before the outbreak of the Persian Gulf conflict, however, Iraq was second to Saudi Arabia, generating some 20 per cent of the total.

42. The GCC subregion experienced a slower deceleration in manufacturing activity relative to the rest of the region. Thus, while the growth rate of the GCC subregion, excluding Kuwait, dropped in 1990 by 5.8 percentage points to 1.7 per cent, the drop in the more diversified economies, excluding Iraq, was more grave, from 14.5 per cent to a mere 0.8 per cent. However, performance varied among the countries in the group. Jordan and Lebanon suffered an acute contraction in their manufacturing activities as a result of the Persian Gulf conflict, owing mainly to the loss of export markets and the consequent fall in output. Although exports to countries outside the region had increased to some extent by the end of 1991, alternative markets were still difficult to penetrate.

43. In Jordan, the manufacturing sector faced great difficulties in 1990 and 1991, sustaining some of the heaviest losses from the Persian Gulf conflict despite improvements resulting from increased domestic demand. In Lebanon, manufacturing activities experienced pronounced contraction in 1990, registering a decline of 24 per cent, as a result of heavy fighting and the Persian Gulf conflict.

44. In Egypt and the Syrian Arab Republic, the performance of the manufacturing sector in 1990 was better than in the other, more diversified economies of Western Asia. Both countries benefited from the increase in oil and cotton prices. In Egypt, the manufacturing sector grew by 9.2 per cent in 1990, compared with 1.3 per cent in 1989. This improved performance may be partly attributed to increased production in the fabricated metal industries as a consequence of the favourable effects of the restructuring policy and liberalization measures that had been introduced in 1988 and to the sharp depreciation of the Egyptian pound during the period prior to 1990.

45. Information available for 1991 indicates that the performance of the manufacturing sector remained generally weak, with some subsectors (mainly food, beverages, clothing and construction) benefiting, however, from rising demand. In the GCC countries, performance has reportedly been better than in the rest of the region. Major public projects in the GCC subregion, such as Saudi Arabia's petrochemical expansion projects, Qatar's Northfield gas project and the aluminium projects in Bahrain and the United Arab Emirates continued to be implemented as planned.

46. The ESCWA region's trade and balance of payments were negatively affected by the Persian Gulf conflict. The most adversely affected countries were Iraq and Kuwait. Trade flows stopped from August 1990 through late February 1991 for Kuwait and through 1991 and into 1992 for Iraq. The destruction of oil production and export facilities, in addition to other destruction, may affect the two countries' foreign trade and balance of payments for some years to come. Jordan and Yemen followed in terms of extent of damage done to their external sector. Iraq and the GCC countries were important export markets for both of them; accordingly their exports suffered severely from the sanctions imposed on Iraq on the one hand and from the deterioration in political relations with the Persian Gulf States on the other. Their balance of payments were adversely affected not only by the cessation of the inflow of aid from Gulf States, but also by the sharp decline in workers' remittances after the repatriation of about 750,000 Yemenites and 300,000 Jordanians and Palestinians. Moreover, the Persian Gulf conflict not only disrupted intraregional trade but also seriously damaged prospects for regional cooperation.

47. The aggregate dollar value of the ESCWA region's exports achieved its third successive increase in 1990, reaching $102 billion, a figure 15.3 per cent higher than that recorded the preceding year. However, this was still less than half the rate of increase recorded in 1989.

48. Exports increased in dollar terms in all ESCWA countries in 1990, with the exception of Jordan and Yemen. Exports of these two countries declined by 16 per cent and 6.9 per cent respectively, mainly because they had lost their traditional export markets in Iraq and the GCC countries after the eruption of the Persian Gulf conflict. The exports of Lebanon increased by 3.3 per cent in 1990 after declining by 20.2 per cent in 1989. Syrian exports increased by 35.2 per cent.

49. Apart from Iraq and Kuwait, where a sharp decline was recorded in exports (34.7 per cent and 49.1 per cent respectively), the remaining oil-exporting countries, with the exception of Yemen, recorded high rates of export growth in 1990, ranging between 20.7 per cent (for Bahrain) and 56.6 per cent (for Saudi Arabia).

50. Judging by preliminary data available for some GCC countries, the decline in oil prices in 1991 and the continuation of economic sanctions against Iraq, it appears that with the exception of Saudi Arabia, exports of other GCC countries and Iraq declined in dollar terms in 1991, especially Iraq's. As for the other ESCWA countries, the world economic recession, the falling prices of oil and primary commodities and the adverse effects of the Persian Gulf conflict are expected to have negatively affected their exports in 1991.

51. The ESCWA region's aggregate imports totalled around $70 billion in 1990, implying a 3.2 per cent increase over 1989. This small growth took place notwithstanding the sharp decline in imports into Iraq (33.5 per cent) and Kuwait (48.2 per cent). Imports by Yemen also declined, by 18.5 per cent. Imports increased in all other ESCWA countries in 1990.

52. The continuous decline in the region's ability to finance imports from export proceeds, which reached its lowest level in 1986 (0.88), showed a small improvement in 1988 as the ratio increased to unity, that is, export proceeds were adequate to cover imports. The increase in the region's exports during 1989 and 1990 while the level of import remained relatively stable led to a large increase in the export/import ratio, which reached 1.31 and 1.46 respectively. All groups of countries in the region contributed to the improvement of the export/import ratio in 1989. However, the improvement in 1990 mirrored the situation only in the oil-exporting countries, particularly the GCC countries.

53. The overall geographical distribution of exports from the ESCWA region showed significant changes in 1990 and 1991 compared with 1989. The share of the developed market economies, the region's major export outlet, increased from 46.4 per cent in 1989 to 56.1 per cent in 1990, but declined slightly in 1991. The share of other developing regions declined from 22.5 per cent in 1989 to 21.3 per cent in 1990 and 18.3 per cent in 1991. Intraregional exports declined from 8 per cent in 1989 to 6.1 per cent in 1990 and then to 5.8 per cent in 1991.

54. The import trade of Western Asia continued to be dominated by suppliers from developed market economies, whose share increased from an average of

about 57 per cent in 1989 and 1990 to 61.3 per cent in 1991. The major trading partners remained the European Economic Community (EEC), followed by the United States of America and Japan. These were followed by suppliers from other developing regions (14.4 per cent). Intraregional imports declined from 9.8 per cent of the total in 1989 to 8 per cent in 1990 and to 7.6 per cent in 1991.

55. The combined current account balance of the region, excluding Iraq and Lebanon in 1989 and 1990 and Kuwait in 1990, registered a surplus in 1989 after seven years of continued deficits. The surplus increased further in 1990, rising form $2.4 billion to $4.4 billion. The improvement came as a result of the sharp increase in the trade surplus, which rose from about $2.1 billion in 1988 to $20.9 billion in 1989 and further to $32.3 billion in 1990. This in turn reflected the improvement in the GCC countries. In contrast, the deficit on the services account rose from $6.3 billion in 1989 to $14 billion in 1990, while the deficit on unrequited transfers rose from $5.4 billion to $8.6 billion. The improvement in the trade balance in 1990 reflected essentially higher oil exports after the surge in oil prices beginning in August, but also the continuous compression of imports.

56. The external accounts of the more diversified economies of the region have been traditionally influenced to a considerable extent by impulses originating in the GCC countries and Iraq in the form of trade, aid, workers' remittances and payments on account of tourism, transit and other services. The group's trade deficit (excluding Lebanon) deteriorated from $0.8 billion in 1989 to $8 billion in 1990, in spite of the increase in the Syrian Arab Republic's trade surplus from $1.2 billion to $2.2 billion as its export performance continued to improve. In Jordan, the trade deficit more than doubled, reflecting the steep decline in exports, and in Egypt the deficit increased as a result of a surge in imports.

57. Aggregate international reserves of the ESCWA region (excluding Iraq) fell from $35.6 billion in 1989 to $31.4 billion in 1990. This decline reflected entirely the position of the GCC countries (in particular Saudi Arabia and Kuwait), which drew heavily on their international reserves to help meet obligations and outlays related to the Persian Gulf conflict. The international reserves of the more diversified economies increased from $7.8 billion to $8.8 billion over the same interval.

58. The decline in the region's international reserves has meant less adequate provisions for imports and other necessary foreign exchange outlays, thus increasing member countries' external exposure and vulnerability. The reserve/import ratio for the ESCWA region as a whole declined from 6.3 months in 1989 to 5.8 months in 1990.

59. The external debt of the ESCWA countries was on the rise during the 1980s and has been so during the first two years of the 1990s, with some of the highly indebted countries rescheduling part of their debt and some others building up arrears. The total identified debt of the ESCWA countries jumped

from around $113 billion in 1985 to over $153 billion in 1990, thus constituting around 9 per cent of total external debt of all developing countries in the latter year.

60. For a number of countries, the debt situation is serious, and in some cases (Jordan, Egypt, the Syrian Arab Republic and Yemen) critical. In those countries, debt service and debt repayments have been rising, with adverse repercussions perhaps as severe as in other highly indebted developing countries. However, following the forgiveness by their creditors in the wake of the Persian Gulf conflict of a significant portion of the debts of Egypt and the Syrian Arab Republic, the external debt of the former is estimated to have been reduced to under $30 billion, down from around $55 billion in mid-1990. Part of the forgiveness of Egypt's debt is related, however, to its progress in implementing economic adjustment and reform policies supported by the International Monetary Fund and the World Bank. The external debt of the Syrian Arab Republic is estimated to have been reduced by a quarter, to around $12 billion, down from $16 billion at end-1989. Meanwhile, Jordan's foreign debt was rising in the late 1980s and early 1990 and was estimated at $7.2 billion at the beginning of 1992. The country was able in early 1992 to reach an agreement with the Paris Club providing for a 10-year postponement of the debt repayment instalments of official debts to Paris Club members. If Jordan manages to work out a similar agreement with the London Club the Kingdom's annual payment burden will ease to $700 million - $800 million until 1993, when it will have to work out fresh rescheduling arrangements for payments due from 1994 onwards. However, even the $700 million - $800 million debt servicing level may pose a heavy burden on Jordan, given the cessation of aid from the GCC countries and the decline in workers' remittances.

61. The foreign exchange rates of the GCC countries, with the exception of Kuwait, remained fairly stable in 1990 and 1991. Kuwait, however, has managed to restore the exchange rate to the level that existed prior to the eruption of the Persian Gulf conflict, thus restoring confidence in the Kuwaiti dinar and helping stem capital outflows.

62. The Iraqi dinar depreciated sharply in the parallel market following the outbreak of the Persian Gulf conflict. Thus while officially the Iraqi dinar is set at about $3.22, its value in the paralled market tumbled from around four Iraqi dinars per dollar before the Persian Gulf conflict to more than ten Iraqi dinars per dollar in 1991 and more than fourteen Iraqi dinars per dollar during the first quarter of 1992. The Lebanese pound (LL), which had been strengthened by the ending of fighting as a result of the Taif Agreement (ratified 5 November 1989) and supported by the Central Bank of Lebanon at the rate of 879 pounds to the dollar, tumbled to a record low of more than LL 1,400 to the dollar in early April 1992 following the Central Bank's decision in February 1992 to stop intervening in the foreign exchange market. Egypt declared a unified exchange rate as recommended by the International Monetary Fund on 1 October 1991, four months ahead of schedule. The Egyptian pound (LE) remained fairly stable during the fourth quarter of 1991 and first quarter of 1992 at around LE 3.3 to the dollar. On the other hand, Yemen introduced in early 1992 a new exchange rate of 18 Yemeni rials (YRIs) to the

dollar, to be used in the calculation of customs duties. The official rate at the Central Bank of Yemen remains at 12 YRIs to the dollar, while in the parallel market the rate is about 30 Yemeni rials to the dollar.

63. The government budgets of most ESCWA countries were adversely affected by the Persian Gulf conflict and its aftermath. While oil revenues surged unexpectedly in 1990, the GCC countries and especially Saudi Arabia sharply increased their expenditures to finance the consequences of the Persian Gulf conflict. Saudi Arabia had a budget deficit of $16 billion in 1990 and a similar shortfall was envisaged for 1991. Moreover, priorities in government expenditures have tilted towards defence and security and in the case of Kuwait also towards reconstruction. Kuwait's long-delayed 1991-1992 budget projects a record deficit of $18.3 billion in the first full fiscal year since the Persian Gulf conflict. Expenditures in the 12 months to July 1992 are forecast at $21.3 billion against revenues of $3 billion. The United Arab Emirates' 1992 budget deficit is expected to be slightly higher than in 1991, with revenues estimated at $4.32 billion against $4.13 billion in 1991 and expenditures at $4.7 billion compared with $4.45 billion in 1991.

64. After the end of the Persian Gulf conflict, the GCC countries resumed implementing development projects that had been delayed by the crisis. In the process, some countries had to resort to external borrowing.

65. The efforts of the more diversified ESCWA countries to substantially reduce their large budget deficits have not generally been successful. These countries have been able to neither significantly raise domestic revenues nor considerably reduce expenditures, owing to the difficulties in cutting major items of current expenditures such as defence, subsidies, debt service payments and wages and salaries. The International Monetary Fund (IMF) has urged a number of ESCWA countries, especially those with debt repayment problems such as Egypt and Jordan, to drastically reduce the ratio of the budget deficit to gross domestic product (GDP) as one of the basic adjustment measures. Recent budget estimates reflect attempts to lower budget deficits.

66. The budget estimates for 1990 and 1991 of the more diversified ESCWA countries generally reflect an increase in the level of expenditures below inflation rates. In Jordan, expenditures were cut by 1.8 per cent in 1989; however, there was a marginal increase in 1990 and 1991, mainly owing to expenditures related to accommodating the returnees, as other expenditures were reduced. Jordan had frozen wages and salaries of public employees in 1990 and 1991 but allotted a sum amounting to 48 million Jordanian dinars (JD 48 million) for their increase in 1992; and it reduced expenditures on subsidies by 5 per cent in 1990 and 1991 and cut development expenditures. Egypt has also cut expenditures on subsidies, which exert a heavy burden on the country's budget.

67. On the revenue side Egypt and the Syrian Arab Republic, both relatively minor oil producers, benefited from higher oil prices in 1991. Both countries, in addition to Jordan and Yemen, are attempting to increase their tax revenues. Egypt has reduced tax concessions and improved its tax

collection methods. In the wake of the economic reforms agreed with IMF, Egypt replaced the consumption tax by a 10 per cent sales tax in 1991. Jordan is currently considering increasing domestic revenues through the imposition of a value added tax, and raising income tax revenues.

68. The economic outlook for the ESCWA region will continue to be influenced strongly by the Persian Gulf conflict and its aftermath in 1992 and for several years to come. The financial constraints that were accentuated by the Persian Gulf conflict will negatively affect the level of investment expenditures in the ESCWA region as a whole and the resource-deficit countries in particular. Reconstruction, and rebuilding of Kuwait's oil industry in particular, is expected to continue to progress rapidly. However, economic activities by the private sector may be expected to remain relatively sluggish. The return of business confidence to the GCC countries is expected to enhance their economic activities during 1992.

69. Following present trends, Iraq is expected to continue to suffer in 1992 from the devastation of its economy during the Persian Gulf conflict, as well as from the United Nations economic sanctions. While the removal of sanctions should help stop socio-economic conditions from deteriorating further, full economic recovery will take considerable time, given the enormous external financial obligations outstanding and the large domestic investment and reconstruction requirements.

70. ESCWA countries that have to cope with large numbers of returnees from the Persian Gulf will continue to suffer from the burden of absorbing those returnees and from the decline in workers' remittances. Moreover, financial aid and trade relations between the GCC countries and countries regarded as having been sympathetic to Iraq during the Persian Gulf conflict are expected to remain minimal in 1992, and possibly for several years thereafter. On the other hand, economic relations may be expected to strengthen further between the GCC countries and countries that supported them during the Persian Gulf conflict.

III. SOCIAL DEVELOPMENTS

71. Owing to the Persian Gulf conflict, social conditions in the ESCWA region have undergone significant changes with negative and far-reaching implications for all countries that are expected to last for a long time. Furthermore, those changes are expected to affect all segments of the population, but especially the disadvantaged groups such as youth, women, the elderly, disabled persons and refugees.

72. The Persian Gulf conflict has added new social problems to already existing ones, particularly with regard to the forced migration of large numbers of people as a result of the war and the subsequent disruption of long-standing political and economic ties among ESCWA countries. These emerging socio-economic difficulties are adding in some countries of the region to the deteriorating social conditions, in particular those reflected

by poverty; unemployment; differences in living standards; social instability; weakened family ties; juvenile delinquency and drug abuse; increasing numbers of disabled persons, refugees and displaced persons; and the rise in disruptive and socially unacceptable modes of behaviour.

73. With the deterioration of social conditions in the ESCWA region, some countries have been obliged to exploit available facilities more intensely. For example, the Government of Jordan was obliged to introduce the double-shift system in many of its schools in order to accommodate the influx of returning students from the Persian Gulf countries, while preparations are being made to build more schools in various governorates to provide better facilities for the students and end the two-shift system.

74. Educational expansion and improvements, which have been a major characteristic of social development in the region, continued in 1991. The adult literacy rate for the region as a whole is believed to have reached 50 per cent. Adult literacy rates range from 76.8 per cent (Lebanon) to 30 per cent (Oman), with three countries having rates below 50 per cent (30 per cent in Oman, 32.4 per cent in Yemen and 44.6 per cent in Egypt). Five countries (Bahrain, Jordan, Kuwait, Lebanon and Qatar) have recorded literacy rates of over 70 per cent. Most significant in this regard is the fact that the gross enrolment rate in primary education (an indicator of long-term trends and future projection on literacy) has almost reached 90-100 per cent in all countries except Yemen and Saudi Arabia.

75. Health conditions in the ESCWA region have improved over the past few years, owing primarily to systematic national health programmes and financial assistance given by the oil-rich Persian Gulf countries to poor countries in the region. The infant mortality rate at the regional level has improved from 96 per 1,000 births during 1980-1985 to 59 per 1,000 births projected during 1990-1995. Life expectancy at birth at the regional level has improved from 59.9 during 1980-1985 to 64.5 during 1990-1995. The estimated infant mortality rate ranges from 15 for Kuwait to 107 for Yemen during 1990-1995. Similarly, life expectancy at birth ranged from 73.4 for Kuwait to 51.5 for Yemen in 1990.

76. The economic and social disruption and destruction caused by the Persian Gulf conflict and its aftermath have had a negative impact on health conditions in many ESCWA countries, but that negative impact has been most serious by far in Iraq. The mortality rate of children under five years of age in Iraq is reportedly 380 per cent greater than before the onset of the Persian Gulf conflict. Over 900,000 Iraqi children were reported to be malnourished in 1991, and the situation continues to deteriorate.

77. The rural population still represents a majority in both Yemen and Oman and to a lesser extent Egypt. The rural population in the region has been living in socially, culturally and economically disadvantaged conditions. The lack of adequate employment opportunities, health services, education, social life and recreation has resulted in a continuing massive rural-urban migration of the youth populations.

78. Population policies alone cannot curb rural-urban migration and urban congestion as long as migrants respond to existing income differentials. Solutions should be undertaken, in the rural and urban social and economic contexts, to improve living standards in rural communities by responding to vital needs of rural youth in the areas of food, clothing, housing, education, health, recreation and, most important of all, employment.

79. Since a considerable number of expatriate workers in the Persian Gulf countries came from rural areas, the unplanned return of mainly unskilled expatriate workers to the rural communities is very detrimental to socio-economic conditions in the labour-sending countries of the region. The reintegration of the returning workers within rural communities is expected to be difficult and challenging, given the magnitude of the unemployment problem in these countries and their limited financial resources.

80. The magnitude of the problem of disability in Western Asia has increased in size, as well as scope, owing to armed conflicts such as the conflict between Iraq and Iran, Lebanese civil strife, the Persian Gulf conflict and efforts to suppress the intifadah in the occupied Palestinian territory. Furthermore, there is a significant undernumeration of the disabled female population in most ESCWA countries.

81. The ESCWA region is characterized by a large youth population. It is estimated that 18.7 per cent of the total population of the region are young people in the age range of 15-24 years. In 1990, this population amounted to 23 million people. The ratio of the youth population to the total population is expected to rise to 20 per cent by the year 2005. The highest proportion of the youth population in the ESCWA region is found in Lebanon and Jordan, where 22 per cent of the total population is between the ages of 15 and 24, followed by Yemen. The lowest ratio is in the United Arab Emirates (13 per cent), followed by Bahrain (15 per cent).

82. In 1990, the number of elderly persons of over 60 years of age as a proportion of the total population of the region was 5.1 per cent, and the number of those over 65 years of age as a proportion of the total population was only 3.2 per cent, a ratio much lower than the world average. However, in the year 2025, it is expected that these percentages will reach 8.4 per cent and 5.6 per cent respectively. The needs for social services for the elderly have increased, and the extension of coverage of those needs by both public and private social service networks should be a matter of urgency. New policies for the ageing, such as flexible retirement schemes, vocational retraining and income security schemes are needed. The active participation of voluntary organizations in assisting the elderly should be promoted, together with efforts to conserve essential family services and strengthen family ties.

Notes

1/ Summary of Iraq's Financial Obligations and Basic Requirements, report submitted by the Ambassador of Iraq to the United Nations, 29 April 1991, p. 7.

UNITED
NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/1992/53
3 June 1992

ORIGINAL: ENGLISH

Substantive session of 1992
Item 12 of the provisional agenda*

DEVELOPMENT AND INTERNATIONAL ECONOMIC COOPERATION

Combating aridity, soil erosion, salinity, waterlogging, desertification and the effects of drought in South Asia

Note by the Secretary-General on the implementation of Economic and Social Council resolution 1191/97

1. By its resolution 1991/97 the Economic and Social Council requested the Secretary-General, "in close collaboration with the Executive Director of the United Nations Environment Programme, the Administrator of the United Nations Development Programme and the Secretary-General of the United Nations Conference on Environment and Development and other international and national development assistance organizations to undertake a study, within existing resources, to assess the extent of this problem and its effects on the peoples of the region, and to provide a framework for national and international cooperative efforts, through appropriate existing United Nations organizations, donor and international development institutions and national organizations and programmes, to tackle this problem in its physical and human dimension, and to submit the study to the Economic and Social council in 1992".

2. On receiving the information in November 1991 that the United Nations Environment Programme (UNEP) was to be the lead organization in the implementation of this resolution, the Executive Director of UNEP consulted with the agencies concerned, particularly with the United Nations Development Programme (UNDP), the Food and Agriculture Organization of the United Nations (FAO) and the Economic and Social Commission for Asia and the Pacific (ESCAP). All agreed that a serious study of the magnitude envisaged in the

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resolution could not be done within the time framework set by the resolution, especially as the resolution specified "within existing resources" which prohibited the organizations concerned from devoting additional human resources to the study. Consequently, they proposed (and their proposal was endorsed by the Programme Planning Unit of the Economic and Social Council) that UNEP and the other agencies concerned, would jointly prepare an interim report for the Secretary-General to be submitted to the Council at its substantive session in 1992 on the understanding that the full study would be submitted in 1993.

3. The present progress report, therefore, is limsited to informing the Council on the arrangements being made for the preparation of the study and outlining its basic contents.

4. For the purpose of this study, the geographical scope of South Asia was defined as including the following eight countries of the ESCAP region: Afghanistan, Bangladesh, Bhutan, India, the Islamic Republic of Iran, Nepal, Pakistan and Sri Lanka.

5. The draft of the study is being prepared by FAO, mainly through its Regional Office for Asia and the Pacific, utilizing its past experience and results of work undertaken in the Region. This draft will then be reviewed, supplemented and ammended in consultation with the cooperating agencies, using their relevant databases, before it is jointly presented, at the beginning of 1993, to the Secretary-General for his consideration and further action. Some additional financial resources needed by FAO to compile the study will be shared by the cooperating agencies.

6. A preliminary examination of available data shows that South Asia includes at least two very different groups of countries. Afghanistan, India, the Islamic Republic of Iran and Pakistan are severely affected by aridity, recurrent droughts and desertification at least in a major part of their territories. Bangladesh, Bhutan, Nepal and Sri Lanka are situated for the most part in more humid climates, but they, too, have serious but physically different dominant land degradation problems, including nutrient depletion and loss of watershed values. All eight countries have extensive fragile mountainous ecosystems within their territories, but in Bhutan and Nepal these ecosystems dominate the landscape and bring certain specificity to the land problems of the two states.

7. A common feature for all eight countries is intensive vegetation and soil degradation and a corresponding loss of potential biological productivity. This takes place against the background of a fast-growing population and rather limited land resources (over 90 per cent of cultivable land in Asia is already cultivated or has been cultivated and lost in the past - much more than in any other continent, including densely populated parts of Europe). This common feature is reflected in similar socio-economic problems experienced by the States of the subregion, including severe poverty and civil strife.

8. The United Nations agencies and bodies that are responsible for sectoral databases, plans of action and development assistance programmes have for some time been aware of this grave situation in the South Asian subregion. Certain data have already been collected and some plans of action and programmes were prepared and have become operational both at national and regional (ESCAP) levels, with substantial involvement of different United Nations bodies such as FAO, UNEP, UNDP and the World Bank. However, a comprehensive picture of the situation and related activities in the subregion, as requested by the Council, is not yet available. It will, however, be presented in the Secretary-General's report that is planned for next year.

9. The actual status of natural resources, particularly soil, water and vegetation, will be assessed on the basis of data that are available at a global scale: e.g., FAO/Unesco Soil Map of the World; World Map of Human Induced Soil Degradation, published in 1991 by UNEP/ISRIC; the report of the Executive Director of UNEP on the Global Status of Desertification (October 1991); the results of FAO's studies on agro-ecological zones, population pressure and soil degradation; global and regional databases of ESCAP, FAO, UNEP, the World Health Organization (WHO), the World Meteorological Organization (WMO) and other competent institutions. These and other published or official materials will be utilized in the report and supplemented by data obtained within the countries concerned. The relevant data of such international development assistance institutions as the World Bank, will also be utilized.

10. There will be some difficulty in presenting the physical aspects of the problem in the report to the Council, e.g. precise, reliable and compatible subregional data on the present status of soil erosion, or waterlogging and salinization. The major problem will be in collecting and quantifying the available social and economic data, particularly concerning the effects on the peoples of the subregion, in strictly economic terms. Since the existing country statistics are highly aggregated in many cases, it would be necessary to examine research publications and files to obtain supplementary information, such as in case-study form.

11. A framework for national and international efforts to address the problems in the subregion must of necessity taken into account all relevant plans of action and programmes, both national and international (e.g. the Indian Programme of Recultivation and Use of Wastelands; the AGENDA 21 Plan of Action of the United Nations Conference on Environment and Development; the United Nations Plan of Action to Combat Desertication; the Tropical Forestry Action Programme; the Regional Strategies for Arresting Land Degradation in Asia and the Pacific of FAO and other instruments. All of this information needs to be complied, collated, analysed and supplemented if the study requested by the Council is to be carried out in a serious manner. No such study could have been finalized within the short time-frame originally envisaged.